



AFRICAN DEVELOPMENT FUND

COUNTRY: MULTINATIONAL

MULTINATIONAL: AFRICAN VIRTUAL UNIVERSITY SUPPORT PROJECT PHASE II (AVU II)

PROJECT APPRAISAL REPORT

Date: October, 2011

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Currency Equivalents

October 2011

1 Unit of Account = 1.56 US\$

Fiscal Year

[Fiscal year 1 July – 30 June]

Weights and Measures

1 metric tonne	=	2204 pounds (lbs)
1 kilogramme (kg)	=	2.200 lbs
1 metre (m)	=	3.28 feet (ft)
1 millimetre (mm)	=	0.03937 inch (“)
1 kilometre (km)	=	0.62 mile
1 hectare (ha)	=	2.471 acres

Acronyms and Abbreviations

ACBF	African Capacity Building Foundation
ACEP	AVU Capacity Enhancement Program
AVU	African Virtual University
AU	African Union
CoPs	Communities of Practice
CQS	Selection based on Consultants Qualifications
EAC	East African Community
EFA	Education for All
FAO	Food and Agriculture Organization
FM	Financial Management
FY	Financial Year
HEST	Higher Education Science and Technology
ICB	International Competitive Bidding
ICT	Information Communication and Technology
M&E	Monitoring and Evaluation
MTS	Medium Term Strategy
NEPAD	New Partnership for Africa’s Development
ODeL	Open Distance and e-Learning
OER	Open Educational Resource
ONRI	NEPAD, Regional Integration and Trade Department
PIs	Partnering Institutions
PCN	Project Concept Note
PCR	Project Completion Report
PCT	Project Coordinating Team (PCT)
PFM	Public Financial Management
RISPs	Regional Integration Strategies
RPGs	Regional Public Goods
SADC	Southern African Development Community
SHERNet	Somali Higher Education Regional Networking
UEMOA	Union Economique et Monétaire Ouest-Africaine
UNESCO	United Nations Educational, Scientific and Cultural Organization
UA	Unit of Account
VSAT	Very Small Aperture Terminal
WAEMU	West African Economic Monetary Union

Grant Information

Client's information

BORROWER: African Virtual University

EXECUTING AGENCY: African Virtual University

Financing Plan (2012-2016)

Source	Amount (UA million)	Instrument
ADF RPG	10.00	Grant
Counter Part	3.64	
Total cost	13.64	

ADB's key financing information

	Unit of Account
Loan currency	
Duration	N/A
Grace period	N/A
Repayment period	N/A
Commitment fee	N/A
Service charge	N/A
FIRR, NPV (base case)	N/A
EIRR (base case)	N/A

Timeframe - Main Milestones (expected)

Concept Note approval	October 2011
Project approval	December, 2011
Effectiveness	January 2012
Completion	December 2016
Last Disbursement	June 2017
Last repayment	N/A

Project Summary

Project overview

1. **The Multinational AVU support project Phase II, builds on phase 1 of the project.** It aims to create and strengthen capacity of target institutions to improve access to quality and affordable higher education through application of ICT innovations for Open , Distance and E- Learning(ODeL). Phase 1 was evaluated through a Project Completion Report and the Bank's Operations and Evaluation's Department with an overall project outcome rating of '3'. The evaluations concluded that Phase 1 was relevant and effective in delivering expected outputs and achieving outcomes. Overall, the evaluation concluded that the phase 1 was satisfactory and exceeded planned objectives. AVU through phase 1 emerged winner of the Education-Portal.com's first ever Global Open Courseware Consortium (OCW) People's Choice Awards under the Best Emerging Initiative category (<http://eduport.al/qR3Kbt>). Phase 2 will continue to enhance the capacities of target Institutions to deliver quality, flexible, relevant and affordable ICT enhanced educational programs in science and mathematics programs. For example, the Teacher Education Program developed in Phase I will be rolled out in new target institutions and the Teacher Education Consortium will be strengthened to ensure the ICT enhanced modules developed in Phase 1 are updated
2. **The project cost is 13.64 million UA and has four main components, namely:** (i) *Establishment and/or upgrading of Open, Distance and eLearning Centers (ODeL) and eLearning Centers;* (ii) *Training of PIs in AVU Capacity Enhancement Program (ACEP) and Development of ICT enhanced Programs;* (iii) *Enhancement of AVU capacity to provide Technical Assistance, carry out Research and Documentation in ICT and Education themes;* and (iv) *Project Management.* The project targets 27 AVU Partner Institutions in 22 countries: 9 Francophone African Countries: Benin, Burkina Faso, Burundi, Cameroon, Democratic Republic of Congo, Mali, Mauritania, Niger and Senegal; 4 Lusophone African Countries: Angola, Cape Verde, Guinea Bissau and Mozambique; 9 Anglophone African Countries: Gambia, Ghana, Kenya, Namibia, Nigeria, Rwanda, Sudan, South Sudan, and Tanzania.

Needs assessment

3. **Access to Higher Education in Sub-Saharan Africa is as low as 4% compared with more than 11% for the developing world outside the continent and innovative strategies, including use of ICT in higher education, are required to improve the situation and increase access.** As demonstrated in Phase 1 outcomes, ICT in Education has emerged as a promising alternative to improve access. The current traditional residential university education approaches in Africa are unable to meet the increasing demand for higher education. E-learning thus enables access to affordable education outside the institutions physical campus. It is expected that E-learning will facilitate reduced costs in accessing Education and create opportunities for employees, including women, to upgrade their knowledge and skills through the flexible learning approach.
4. **The project supports the Bank's Regional Integration Strategies (RISPs) for Central, Eastern, Western and Southern Africa 2011-2015 concerning Regional infrastructure, including education connectivity (ICT), higher education and Capacity building.** The project will be implemented in 22 Anglophone, Francophone and Lusophone countries beyond technological, language and cultural barriers. The project meets the Bank's criteria for Regional Public Good (RPG). In this regard, it targets 22 countries that are Anglophone, Francophone and Lusophone, adopts a regional collaborative approach in the development and harmonization of curriculum, and promotes creation of regional professional networks as platforms for subject matter experts interaction.

Bank's Added Value

5. **The project fosters regional integration in its collaborative methodologies approach.** This includes development of commonly agreed upon ICT enhanced programs based on a harmonized curriculum and a common quality assurance framework. The private sector will be involved in the project in the area of offering technical expertise to subject matter experts during curriculum development and in development of E-learning Centres equipment. In addition, the private sector will also be involved in the installation and training in the use and maintenance of E-Learning Centres equipment and internet provision.
6. **New development Partners are now working with AVU on ICT enhanced education as a result of the successful implementation of the Phase 1 multinational project.** However, the interventions are limited in focus and scope and are mainly utilising the infrastructure and experiences developed through phase 1. Bank financing to Phase 2 will therefore be beneficial by consolidate and scaling up project outcomes from Phase 1. For example, the Phase 1 ICT enhanced Teacher Education Programs in Mathematics and Science will be replicated in eleven (11) PIs. Based on phase 1, AVU has gained experience and learnt invaluable lessons in ODeL methodologies; AVU's new business plan focuses on strengthening quality and relevant ICT enhanced education to increase access.

Knowledge management

7. **The project will support research and documentation in distance and E-Learning methodologies in Higher Education in order to inform the practice as well as the development of relevant and quality ICT related policies and strategies.** AVU will undertake research and publish reports on ICT-integrated content development processes; E-Learning programs delivery; mobile learning; ODeL methodologies; and distance and E-learning policy briefs.
8. **AVU will facilitate the creation and hosting of professional networks for Communities of Practice (CoPs) in each of the project programs.** This will enhance interaction among the subject matter experts and ACEP participants to ensure the programs are updated beyond the project period.
9. **The Teacher Education and Computer Science program modules developed under this project will be uploaded on the Open Educational Resource (OER) repository which was developed (<http://oer.avu.org>) for unrestricted access in Phase I.** The modules will be developed and translated into English, French and Portuguese. As an outcome of Phase 1, AVU is a member to the Global Open Courseware Consortium (OCWC) and the UNESCO OER chairs.

MULTINATIONAL AFRICAN VIRTUAL UNIVERSITY SUPPORT PROJECT PHASE II (AVU II)

Result-based Logical Framework

Country and project name: Multinational African Virtual University Support Project Phase II (AVU II)						
Purpose of the project: To contribute to increased Higher Education access through quality ICT assisted education and training in Africa.						
Project objective: To strengthen the capacity of 27 Partnering Institutions (PIs) in 22 African countries within the AVU network and the African Virtual University (AVU) to develop, deliver and manage quality ICT assisted tertiary education and training opportunities in science and technology programmes.						
RESULTS CHAIN		PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
		Indicator (including CSI)	Baseline 2010	Target		
IMPACT	Impact Increased ICT enhanced access to Higher Education in target Partnering Institutions (PIs)	Increase in enrollment using ICT enhanced modules	44,308	60,000 by 2017	AVU M&E Data Annual Data from the target Universities and Ministries	
	Outcome 1 Target program areas are delivered using ICT enhanced modules in target PIs	Increased access to higher Education in the target programs	4,000	20,000 by 2016	Annual Data from the target Universities and Ministries AVU M&E data (gender disaggregated)	Risk Inadequate participation of academic staff from fragile states in the development of modules Mitigation Develop a strategy to ensure active participation of Fragile State PIs using the contingency budget for travel and as need arises.
	Outcome 2 Increased qualified female scientists in AVU PIs	Increase in number of qualified Females in Science fields	537	1000 by 2016	Annual Data from the target PIs and Ministries AVU M&E data	Risk Inadequate numbers of females qualifying for the target programs Mitigation Gender mainstreaming in programs development; explore bridging course where relevant; and the scholarship fund will target female students
	Outcome 3 Increased Capacity of AVU to advise target PIs and countries in formulation of ICT in Education policies Strategies and interventions	Number of target PIs institutionalising relevant and quality 'ICT in Education' policies, Strategies and application of the same.	0	27 by 2014	AVU M&E data Target PIs project reports Annual Data from the target Universities and Ministries	Risk Inherent complexity of multinational operations that makes implementation challenging Mitigation AVU's experience in managing Phase 1; its effective use of ICT; and its regional Office in Dakar
OUTCOMES						

OUTPUTS	Establishment of ODeL Centres and Upgrading of AVU Learning Centres	Functional ODeL centers established and or upgraded.	10	39 by 2014	AVU M&E data (gender disaggregated)	
	ACEP Training	Staff trained in ACEP	133	533 by 2014	Target PIs project quarterly reports	
	Development and/or updating ICT enhanced programs	ICT enhanced modules updated, developed and adopted	219	408 by 2015	Conference and workshops reports	
	Increased access to ICT enhanced programs	Students enrolled using ICT enhanced modules	4,000	20,000 by 2016	Annual Data from the target Universities and Ministries	
	Award of scholarships to females & disadvantaged groups	Scholarships awarded to females	372	1000 by 2015		
	ICT in Education Research and Technical assistance conducted and provided respectively	'ICT in Education' Journals published	0	16 by 2015		
		Policy briefs for ICT in education developed	0	66 by 2015		
KEY ACTIVITIES	COMPONENTS		INPUTS			
	Component 1: Establishment of ODeL Centres		Supply of goods to the target ODeL Centres, Provision of Bandwidth/internet in the centres, Commissioning and Exit Training. <u>Goods and services</u> : UA 3.70 million			
	Component 2: Training of PIs in ACEP and Development of ICT enhanced modules		Program Preparations and Review, Programs Development/Review, Program Delivery, Sustainability, Virtual Consortiums, Open Educational Resources Research and Quality Assurance, and gender mainstreaming. <u>Services and goods</u> : UA 7.60 Million			
	Component 3: Enhancement of AVU Capacity		Experts TA to support research and development of policy briefs, strategies and AVU Educational Services <u>Services and Goods</u> : UA 0.94 million			
	Component 4: Project Management		PCU staff, Project supervision, Project Travel, Project Facility, and Technical Assistance. <u>Service: UA1.40 Million</u>			

**REPORT AND RECOMMENDATION OF THE MANAGEMENT OF THE ADB GROUP TO THE
BOARD OF DIRECTORS ON A PROPOSED GRANT TO FINANCE
MULTINATIONAL AFRICAN VIRTUAL UNIVERSITY SUPPORT PROJECT
PHASE II (AVU II)**

Management submits the following Report and Recommendation on a proposed grant for UA 10.00 million to finance the Multinational African Virtual University Support Project Phase II (AVU II).

I – STRATEGIC THRUST & RATIONALE

1.1. Project linkages with relevant strategy and objectives

1.1.1 The project supports the Bank Group Regional Integration Strategies (RISPs) for Central, Eastern, Western and Southern Africa 2011-2015. Specifically, the East Africa RISP has two pillars directly related to this project: Regional infrastructure, including ICT; and Capacity building. The project targets 22 Francophone, Lusophone and Anglophone countries. The RISPs make reference to Education, including HEST and acknowledge that the quality of education has not kept pace with regional development needs or capacity to adapt new industrial technology and standardization of HEST through capacity building should be encouraged. The RISPs further note the need to promote education connectivity; creation of networks of higher education that are relevant to regional integration; women empowerment in education. They also note that Higher Education and vocational training require enhancement and improvement in quality. Generally, the Bank Group Regional Integration Strategies (RISPs) for Central, Eastern and Southern Africa 2011-2015 emphasize the need to strengthen the limited access to HEST in Africa to foster economic growth by creating a critical mass of relevant skills. The project meets the Bank's criteria as a Regional Public Good (RPG) as outlined in Appendix 2 and *Technical Annex 10*.

1.1.2 The project objectives are in line with other key regional initiatives that support the role of ICT in enhancing access to quality education. The Dakar Framework for Action of April 2000 recognizes the use of ICT as a key strategy for achieving Education for All (EFA) goals. The September 2000 UN Millennium Declaration, the NEPAD Initiative, the African Union Second Decade (2006-2015) of Education for Africa, and the 2010 Report of the Commission for Africa, all emphasize the role of ICT in advancing access to education. The African Union also emphasizes the need to develop a framework for harmonization of Higher Education Programmes in Africa to foster cooperation in information exchange, harmonization of procedures and policies, attainment of comparability among qualifications, and possibly the standardization of curricula, so as to facilitate professional mobility for both employment and further study.

1.1.3 The Bank's Medium Term Strategy (MTS) 2008 to 2012, identifies ICT development and Higher Education; Technical and Vocational Training as priority areas as well as regional integration. The proposed project will enable development of common ICT enhanced programs across the regions, similar to the common programs across 10 countries in phase 1. The Bank's 2008 *Higher Education Science and Technology* (HEST) Strategy stresses quality tertiary level training by improving conditions for science and technology innovations through, among other interventions, ICT integration; building HEST infrastructure; reviewing and upgrading of curricula and pedagogy to be in line with required HEST; promoting joint research activities within networks; and promotion of regional

integration through HEST. The Bank ICT Operations Strategy also emphasizes the role of ICT applications in education.

1.1.4 The proposed project is in line with AVU Business/Strategic Plan 2009-2014. The plan addresses the needs of AVU Partnering Institutions and is based on lessons learnt from Phase 1. The plan has two main thrusts: (a) *Educational and support services provided on a fee basis*; and (b) *Not-for-profit development services*. The *Not-for-profit development services*, aims at building the capacity of Partnering Institutions (PIs) in ODeL with an objective of increasing access to quality education through the following activities: updating and developing content; Open Educational Resources (OER) Development; AVU Capacity Enhancement Program (ACEP); setting up/upgrading ODeL centers; developing professional networks through Communities of Practices; Research and Development; and Quality Evaluation and Benchmarking. AVU will come up with a new plan beyond 2014, which will also be based on AVU's vision and mission, “*to be the leading Pan-African Open and Distance learning institution; and to facilitate effective Open and Distance E-learning among the African tertiary institutions*”.

1.2. Rationale for Bank's involvement

1.2.1 The project supports the implementation of the Bank's RISPs priorities. The Bank's intervention will further strengthen the role of Phase 2 project as an instrument for regional integration in education and ICT. Modules developed by AVU are uploaded in a platform which is accessible to all PIs in three main languages: English, French and Portuguese. Subject matter experts from the PIs participate in the development and approval of modules in line with in-country quality regulations and learning policies. The countries identify the target PIs and provide buildings for the ODeL centres. ACEP has enabled PIs in phase 1 to develop additional modules beyond the teacher education program. The initiative supports NEPAD and AU priorities in enhancing access to higher education through ICT.

1.2.2 The project meets the Bank's criteria for Regional Public Good (RPG); the criteria are based on ADF 12 Regional Operations and Prioritization Framework; and the Strategic and Operational Framework for Regional Operations. The project is non-excludable and targets 22 countries that are Anglophone, Francophone and Lusophone. The regional dimension is demonstrated by the collaborative approach methodology in the development and harmonization of curriculum for the target ICT enhanced programs. The harmonised curriculum will facilitate regional standardization of qualifications in the target programs thus enhancing labour mobility for academic staff and graduates. The creation of professional networks as platforms for subject matter experts interaction, further promotes this regional dimension. AVU will facilitate the target 27 institutions to develop and deliver quality and relevant ICT enhanced programs. In this regard, AVU will play a 'catalytic' role. The subject matter experts in target institutions will develop the technical content of the curriculum. The AVU ACEP will build knowledge and skills in open and distance learning methodologies to enable target institutions to develop additional ICT enhanced programs beyond the project period. The ICT enhanced modules can be replicated to additional countries within the project period or after. These possibilities demonstrate the incremental benefit of the project outputs and outcomes.

1.2.3 The Bank's intervention is necessary to consolidate and scale up project outcomes from Phase 1. The ICT enhanced Teacher Education Programs in Mathematics and Science will be replicated in eleven (11) PIs that have expressed interest in offering the

program and joining the Phase 1 Teacher Education Consortium which will ensure the modules are up-to-date. The demand for trained Teachers in Science and mathematics remains high in most of the target countries. 219 modules are available in English, French and Portuguese. AVU will play a catalytic role to enable the establishment of 12 new ODeL Centers and upgrading 15 E-learning Centres at twenty seven (27) PIs and to develop ICT enhanced programs in other science and technology fields. Additional staff at the PIs will be trained in writing distance and E-learning courses in ODeL format, web design, e-learning program delivery and ODeL governance. AVU has gained experience and learned valuable lessons in ODeL methodologies in phase 1. There is evidence that students from target countries are pursuing computer science programs abroad. The target institutions to benefit from computer science have indicated the need to expand access in order to accommodate demand from both the private sector and public sector for this program.

1.2.4 The project supports key selected areas in the Bank's 2008-2012 Medium Term Strategy (MTS) and Bank's ICT operations strategy. These include development of ICT Infrastructure; harnessing ICT applications to increase education access; Regional Integration; support to HEST; Gender Mainstreaming and support to Fragile States. Project outcomes include improved access to higher education through ICT enhanced modules; a common curriculum for target programs across the regions including four fragile states; gender mainstreaming in development of programs modules and scholarships for women to access science programs. The MTS endeavours to promote sustainable growth and competitiveness in Africa. Education is key to achieving the related goals. The current estimate of access to Higher Education in Sub-Saharan Africa is around 4%. The role of distance education in this context cannot be underestimated. There is urgent need to extend access outside the traditional physical institutions, by developing quality E-Learning capacities within the target institutions.

1.3. Donor coordination

1.3.1 A cooperation framework with other Development Partners has been developed to support scaling up of this project and the overall 2009-2014 AVU Business Plan. This project is conceptualized within the AVU business plan which was highly informed by Phase 1. The cooperation framework highlights key investments and financing gaps related to this project and AVU strategic plan. The framework, detailed in *Technical Annex 2*, is crucial in informing potential Development Partners willing to support or scale up this project and other activities within the overall 2009-2014 AVU plan. Staff from OSHD in the respective Bank field offices, will continue to engage with Development Partners through the relevant Education Donors Coordination Groups.

1.3.2 New development Partners have come on board to support AVU as a result of the successful implementation of the Phase 1 multinational project. The support directly builds on Phase 1 ODeL methodologies, experience and established infrastructure for ICT enhanced education. These include UN's International Atomic Energy Agency, West African Economic and Monetary Union and European Commission. Table 1 below indicates the nature of this support. Phase 1 was fully supported by the Bank. Some partners have expressed interest in co-financing Phase 2. However no concrete commitments have been made at the time of appraisal. The cooperation framework indicated above will guide future parallel financing commitments for phase 2.

Table 1: Current Development Partner Support

DEVELOPMENT PARTNER	TARGET PI	ACTIVITY	TYPE OF FUNDING
UN's International Atomic Energy Agency	Universities including Hospital Universities	Assist in the establishment of a Virtual University for Cancer Control	Contract for services
Union Economique et Monetaire Ouest-Africain (UEMOA) - West African Economic and Monetary Union	Fifty Five (55) Universities/Public Higher Education Institutions/Private HE Institutions in 8 countries	Conduct a Study of Feasibility and Networking of Institutions of Higher Education in the UEMOA member countries.	Contract for services
European Commission	Nine Somali Institutions.	The Somali Higher Education Regional Networking (<i>SHERNet</i>) promotes organizational learning to improve quality and decentralization of the education system.	Contract for services through Kenyatta University

II – PROJECT DESCRIPTION

2.1. Project components

2.1.1 **The development objective of the project is to contribute to increased Higher Education access through quality ICT assisted education and training in Africa.** The objective of the project is to strengthen the capacity of 27 Partnering Institutions (PIs) in 22 African countries within the AVU network and the African Virtual University (AVU) to develop, deliver and manage quality ICT assisted tertiary education and training opportunities in science and technology programmes.

2.1.2 **Project components are derived from the project's overall objectives and expected outputs.** Table 2 below presents a summary of the project components.

Table 2: Project components

No.	Project Component	Estimated Cost (UA million)	Component Description
1	Establishment of ODeL Centres	3.70	<ul style="list-style-type: none"> Provision of ODeL Equipment to the target ODeL Centres Provision of Bandwidth/internet in the centres Commissioning of ODeL centres and exit Training
2	Training of PIs in ACEP and Development of ICT enhanced Programs	7.60	<ul style="list-style-type: none"> Programs preparation, Development and review Program Delivery Development of Virtual Consortiums (Thematic Communities of Practice) Research and documentation in 'ICT and Education' Review and Implementation the Quality Assurance Framework Open Educational resources Gender mainstreaming
3	Enhancement of AVU Capacity	0.94	<ul style="list-style-type: none"> TA to target institutions and countries on ODeL methodologies Research and development of ICT Education policy briefs and strategies AVU Education support services
4	Project Management	1.40	<ul style="list-style-type: none"> Project supervision, Project Facility PCU staff, and Project Personnel office space and consumable.

2.1.3 The project will strengthen capacity of target institutions and the AVU. This will enable them to improve higher education ICT connectivity and to develop, deliver and manage quality ICT-assisted education and training in Teacher Education (Mathematics, Physics, Chemistry, and Biology), Computer Science, and Peace and Conflict Programs. In terms of focus, Phase 2 of the project will continue to enhance the capacities of target Partnering Institutions to deliver quality, flexible, relevant and affordable ICT enhanced educational science and mathematics programs. This will be achieved through four components as outlined below.

Component 1. Establishment of ODeL Centers

2.1.4 This component involves the establishment of new Open Distance and eLearning (ODeL) centers and/or upgrading of AVU Learning Centers at the target 27 institutions (PI). Similar to Phase 1, the PIs in each country are required to provide space and a building to host the centers and staff to be trained to run the centres. This is part of counterpart contribution and criteria for identifying the PI. The project will support provision of the required ICT equipment and internet connectivity. The Centres will serve as country hubs for the development of ODeL Programs and training PI staff in the use of ICT in the development, delivery and management of ODeL. The centers will also be the delivery points for current and future ODeL programs and enable staff to conduct research and participate in collaborative work in ODeL through established professional networks. Standard equipment for new ODeL centers will include: Electronics (Power backup, Local Infrastructure, Local Area Network) Audio-video equipment; Software; Learning Management System; video conferencing facilities and Bandwidth. As a lesson from phase 1, internet connectivity will take into account the Local Internet Service Providers as opposed to VSAT technology only. Based on phase 1 outcomes, the centers will also be used by PIs to generate income through short term ICT related trainings to enable them meet the centers recurrent costs including internet connectivity after the project funding period. The design layout of the ODeL centre is presented in *Technical Annex 12*.

Component 2: Training of PIs in AVU Capacity Enhancement Program (ACEP) and Development of ICT enhanced Programs.

2.1.5 The ACEP was designed in Phase 1 to develop required skills for developing and delivering ODeL programs in the PIs through three streams. These are: Materials development for ODeL programs; Delivery and Technology of ODeL programs; and Governance, Management and Financing of ODeL programs. ACEP is delivered through a set of workshops and an online professional development program. ACEP graduates carry out cascade training. This component will also undertake a collaborative approach with subject matter academic staff from targeted PIs to develop and/or improve ICT enhanced programs in the following areas (i) Maths and Science Teacher Education; (ii) Computer Science; and (iii) Peace and Conflict Programs. A blended learning approach will be applied where physical laboratory practicals are mandatory. Similar to phase 1, this process will be undertaken in a consortium structure with subject matter experts from the participating institutions. Where necessary, consultancy subject matter experts will provide input. The process will involve a series of workshops on curriculum conceptualization, curriculum design, content development, as well as a parallel process of quality assurance. The content materials will be branded to include the AFDB logo. Professional networks in each subject matter will be established to ensure continued engagement beyond the project life and also ensure the modules are constantly updated to including emerging issues. The Quality Assurance Framework developed in phase 1 will be reviewed and adapted to this project. Scholarships will be awarded to women in order to encourage them to pursue this science based programs. Similar to the Phase 1 Teacher Education Consortium, AVU will facilitate the creation and hosting of professional networks for Communities of Practice (CoPs) in each of the programs.

2.1.6 The gender mainstreaming strategy developed and implemented in phase I will also guide phase 2. Gender Mainstreaming strategy and policies were developed in phase 1 through various consultations with the PIs and countries. The ICT integrated programs to be developed will be gender sensitive. Similar to phase 1, the academic staff will be sensitized on gender issues in HEST to encourage women participation. The 1000 scholarships will be awarded to women for target programs in the PIs within the existing AVU scholarship Fund procedures to ensure accountability for the same and during the project period. Scholarships for women to undertake bridging courses for the target programs will be explored where responses to the degree level scholarships are minimal due to inadequate qualification in sciences.

Component 3. Enhancement of AVU Capacity

2.1.7 The project will facilitate institutional strengthening of AVU. This will enhance its capacity to: (i) scale up its current scope of assistance to PIs and countries; (ii) undertake Open, Distance and E-learning research and training to inform practice as well as Distance and eLearning policies and strategies in Higher Education, (iii) enhance the ability of AVU to offer quality technical advice to governments and PIs in Distance and E-learning policy/strategy matters, and (iv) enhance the ability of AVU to offer its academic programs through eLearning. AVU will undertake research and publish reports on ICT-integrated content development processes; e-Learning programs delivery; ODeL methodologies; and Distance and E-learning policy briefs. Similar to Phase 1, AVU will recruit consultants for specialized assignments. AVU will utilize the program development workshops and quality assurance workshops under component 2 to disseminate research findings and publications. The documents will also be posted online for unrestricted access. One new ODeL center will be established at AVU Headquarters in Nairobi and the ODeL Center at the Dakar Regional Office will be upgraded to enhance AVU's capacity for 'ICT in Education' research and technical assistance to PIs and countries. The centers will also enable AVU to train additional institutions in ODeL methodologies. A technical assistance budget will be provided to support the capacity of AVU to deliver this component. A project Monitoring and Evaluation officer will be recruited and supported under this component.

Component 4: Project Management

2.1.8 Under this component, resources will be provided to ensure effective project management. These will include recruiting and financing the services of a dedicated team to fill the capacity gaps of the existing Project Coordination Unit (PCU) set up under Phase 1. The PCU is composed of: Project Manager, ICT Officer; Senior Project Coordinator; Senior Education Programs Coordinator; a Procurement Officer; and Finance and Accounting officer. The Monitoring and Evaluation officer recruited under Component 3 above, will be part of the project team. Similar to Phase 1, the target Partnering Institutions will establish project coordination team to oversee project activities implementation, monitoring and reporting; this is outlined in the agreement to be signed between AVU and target institutions concerning PIs expectations. The PIs PCUs, will submit quarterly reports to AVU for review and feedback by the AVU M&E officer. In addition, AVU will carry out biannual monitoring visits to PIs. This activity is included in the detailed cost tables. The AVU will contribute to project management through staff time outside of the core PCU, the project oversight time by the Rector and the AVU Board. The AVU Rector, under the AVU Board of Directors, will provide overall guidance and oversight to the project. The AVU Regional office in Senegal will support project implementation specifically in target Francophone African countries. AVU will work closely with the target institutions to publicize the ICT enhanced E-learning programs. In this regard, AVU's website as well as the target institution's websites will be used. Furthermore, the programs will be included

in the overall target institutions academic programs brochures since the programs will be institutionalized.

2.2. Technical solution retained and other alternatives explored

2.2.1 The project considered improving the physical infrastructure in target institutions in order to improve access. This traditional residential university model currently adopted by most universities in Africa is unable to meet either current or projected demand for Higher Education and is also costly. To address this issue, the use of ICT in Education has emerged as a promising alternative. NEPAD has recognized ICT as a key priority in development efforts for the continent. This project seeks to address this demand gap by applying ICT methodologies to provide Higher Education access, outside the universities' physical campus. The project will develop course modules in E-Learning format with an aim to increasing access to quality and relevant higher Education through a deliberate choice to use the ODeL approach for program development and delivery. This approach adopts a flexible learner-centered approach since the programs are delivered both onsite and online. Phase 1 introduced an advanced approach of delivering ICT integrated quality education and its outputs and outcomes demonstrated the role of ICT enhanced education in enhancing access to Higher Education. Phase 2 aims at consolidating these gains and scaling up the project's outputs and outcomes regarding access to Higher Education.

2.2.2 The project also considered adopting existing online programs from relevant Universities in developed countries. It was noted that these programs would not necessarily take into account local context needs and would leave out meaningful participation of target institutions and existing academic staff, thus undermining the Regional Public Good criteria. Phase 1 demonstrated the untapped potential among existing academic staff to develop and deliver programs in E-Learning format. The involvement of institutions' subject matter experts from design to development and implementation of the programs will enable the project outputs and outcomes to respond to the prevailing education and technological needs, and the policy and financial environment in target countries. The ACEP imparts skills on materials development, delivery and technology, governance, management and financing of E- Programs Professional development. This will enable target institutions to sustain development of additional ICT enhanced E-Learning modules beyond the project period. The "brokered" programs would also be very expensive as experienced by AVU and its partnering institutions in the past, thus making access to education in the target programs very costly.

2.3. Project type

Similar to Phase 1, the intervention is a stand-alone multinational project. This option is most practical and suited to AVU's needs. It will enable AVU to play a catalyst role, coordinate and provide oversight to project implementation among the 27 target institutions in 22 countries. In addition, implementation of the main Component (ACEP; modules authoring and delivery; and gender mainstreaming), involves careful planning and execution of activities which include consensus on common curriculum and quality assurance frameworks; authoring workshops and virtual consultations.

2.4. Project cost and financing arrangements

2.4.1 The estimated cost of the project, net of taxes and duties, is UA 13.64 Million. The project is financed by a grant from the ADF 12 Regional Operations Envelope. Costs have been estimated on the basis of the completed Phase 1 costs of equipment and modules development and delivery. The project will be financed jointly by ADF (73.3%) and the AVU

with its network of Participating Institutions (26.7%) in form of ‘in kind’ contributions. These include: AVU staff time outside of the PCU; project oversight by the Rector; and the AVU Board’s supervision. For target institutions, the ‘in kind’ includes: provision of space and a building for the ODeL centre; secondment of staff to manage the ODeL Centres; and availability of subject matter experts to develop and deliver the ICT enhanced modules as well as manage the delivery of the programs. Similar to phase 1, this form of “in kind” contribution, is a prerequisite requirement and a criterion for PI participation in the project. Formal letters have been obtained from the target PIs accepting to participate in the project based on these expectations. A physical contingency provision of 5% has been included in the costing to cover the fast evolving ICT technologies and uncertainties in the delivery of consultancy services. This is a lesson learnt in Phase 1. Price contingencies across activities are estimated at a rate of 2.50% per year, which gives an average of 6% for the project due to expenditure being heavily front-loaded and funded totally from hard currency sources. The list of goods and services and the relating detailed cost estimates is attached as *Technical Annex 14* to this report.

2.4.2 The ADF’s contribution will be a grant of UA 10.00 million. This will meet costs related to the following activities: (i) Furnishing, equipping and providing internet connectivity to ODeL/Learning Centres; (ii) Preparation, development and delivery of four ICT enhanced programs including the programs’ quality assurance, gender responsiveness, marketing, research and development as well as promotion of OERs; (iii) enhancement of AVU’s capacity as an institution in order to be central in the provision of technical support on ICT in Education Policies in the African continent; and (iv) Technical Assistance to the PCU, site visits to the 27 PIs as well as provision of office space and office consumable related to project’s personnel, that is, the PCU and all technical assistants engaged from time to time. The AVU/PIs contribution of UA 3.64 million will finance cost related to ODeL Centre works at the 27 ODeL/Learning Centres; the staffing related to the centres, staff time for academics in the four ICT assisted programs and the overall supervision of the project’s implementation at the AVU as well as extra staff time. Tables 3, 4, 5, 6 and 7 present estimated project costs by components, financing source, and category of expenditure.

Table 3: Project Cost Estimates by component

COMPONENTS	UA				USD		Total
	ADF		AVU		ADF	AVU	
	F.C	LC	F.C				
COMPONENT 1: Establishment of ODeL Centres & Upgrading Learning Centres	2.48	0	0.83	3.31	3.88	1.29	24%
COMPONENT 2: ACEP & ICT Programmes	4.50	0	2.33	6.83	7.02	3.64	50%
COMPONENT 3: AVU Capacity Enhancement	0.84	0	-	0.84	1.31	-	6%
COMPONENT 4: Project Management	1.15	0	0.11	1.26	1.79	0.17	9%
Total Base Cost	8.97	0	3.27	12.24	14.00	5.10	90%
Physical Cont	0.46	0	0.16	0.62	0.71	0.26	5%
Price Cont	0.57	0	0.21	0.77	0.88	0.32	6%
Total Cost	10.00	0	3.64	13.64	15.60	5.68	100%
% of Total	73%	0%	27%	100%			

Table 4: Source of Financing

SOURCE OF FINANCE	F.E	Total	% of Total
ADF Grant	10.00	10.00	73%
AVU Counterpart	3.64	3.64	27%
Total	13.64	13.64	100%
%	100%	100%	

Table 5: Project cost by Component and Source of Funding

COMPONENT	UA millions			USD millions			% of component
	ADF	AVU	Total	AVU	ADF	Total	
COMPONENT 1: Establishment of ODeL Centres & Upgrading 29 Learning Centres	2.76	0.92	3.68	1.43	4.31	5.75	27%
COMPONENT 2: ACEP & ICT Programmes	5.01	2.60	7.61	4.06	7.81	11.87	56%
COMPONENT 3: AVU Capacity Enhancement	0.94	-	0.94	-	1.46	1.46	7%
COMPONENT 4: Project Management	1.28	0.12	1.40	0.19	2.00	2.19	10%
	10.0	3.64	13.64	5.68	15.59	21.27	100%
% of Total	73%	27%	100%	26.7%	73.3%	100.0%	

Table 6: Expenditure Schedule by Component in Million UA

COMPONENT	2012	2013	2014	2015	2016	Totals
COMPONENT 1: Establishment of ODeL Centres & Upgrading Learning centres	1.47	1.11	0.37	0.37	0.37	3.68
COMPONENT 2: ACEP & ICT Programmes	0.76	2.28	2.28	1.52	0.76	7.61
COMPONENT 3: AVU Capacity Enhancement	0.37	0.14	0.14	0.14	0.14	0.94
COMPONENT 4: Project Management	0.28	0.28	0.28	0.28	0.28	1.40
Total	<u>2.89</u>	<u>3.81</u>	<u>3.07</u>	<u>2.31</u>	<u>1.55</u>	<u>13.64</u>
% per year	21%	28%	23%	17%	11%	

Table 7: Project Costs by Category of Expenditure

CATEGORIES	UA			USD			% per Category
	ADF	AVU	Total per Category	ADF	AVU	Total per Category	
	F.C.	F.C.		F.C.	F.C.		
Goods	2.16	0.00	2.16	3.37	0.00	3.37	16%
Works	0.00	0.78	0.78	0.00	1.22	1.22	6%
Services	6.08	2.49	8.57	9.48	3.88	13.36	63%
Operating Cost	0.28	0.00	0.28	0.44	0.00	0.44	2%
Miscellaneous	0.46	0.00	0.46	0.72	0.00	0.72	3%
	8.98	3.27	12.25	14.01	5.10	19.11	90%
Physical Cont	0.47	0.17	0.64	0.73	0.26	0.99	5%
Price Cont	0.56	0.20	0.76	0.87	0.31	1.18	6%
Total Cost	10.00	3.64	13.64	15.60	5.68	21.27	100%
% of Total	73%	27%	100%	73%	27%	100%	

2.5. Project's target area and population

The project beneficiaries will be 27 AVU Partner Institutions in 22 countries as shown in Technical Annex 8. The target countries are countries where AVU Partnering Institutions are based. The target countries are ADF eligible countries and only ADF countries will be eligible to ADF funding. It is expected that at least 20,000 students will be enrolled using the ICT enhanced modules. The list of PIs is outlined in Technical Annex 8 and includes 9 Francophone countries (Benin, Burkina Faso, Burundi, Cameroon, Democratic Republic of Congo, Mali, Mauritania, Niger, Senegal); 4 Lusophone countries (Angola, Cape Verde, Guinea Bissau and Mozambique) and 9 Anglophone countries (Gambia, Ghana, Kenya, Namibia, Nigeria, Rwanda, Sudan, South Sudan, and Tanzania). Each target country (PIs) will benefit from different project components based on their needs and expression of interest as shown in table 5 of *Technical Annex 8*. The criteria include formal expression of interest by the Ministries of Education or Higher Education to participate in phase 2. Factors guiding selection of PIs include credibility and performance of the PI in the target country and possibility of the PI to be a focal point/hub for ODeL. *Technical Annex 8* shows the criteria and process used by the Ministries of Education in target countries and AVU to select the target PIs. This annex also contains a table that summarizes the programs for each country. Countries that benefited from Teacher Education in mathematics and sciences in phase 1 will benefit from other programs. University of Juba will target both Sudan and South Sudan. Appendix 1 to this PAR and *Technical Annex 11* show the geographical location of the Phase 2 target institutions on in Africa.

2.6. Participatory process for project identification, design and implementation

2.6.1 The Phase 2 project was formulated through a participatory process involving key AVU stakeholders. AVU stakeholders include: (i) the AVU Board of Directors who are elected Vice Chancellors/Presidents of various Universities representing the 5 sub-regions of Africa; (ii) the AVU General Assembly comprising its network of 53 Universities in 27 countries; (iii) the Teacher Education Advisory Committee of the completed project; and (iv) ICT and education stakeholders through AVU networks, including the private sector. Following the completion of Phase I, the AVU received requests from PIs interested in joining its network to benefit from the outputs of the concluded project and phase 2. *Technical Annex 9* outlines the General Assembly Communiqué.

2.6.2 The project appraisal mission included visits and consultations with a sample of target countries and Ministries of education in Cameroon, Ghana, Rwanda, Kenya, and Democratic Republic of Congo (DRC). *Technical Annex 1* contains details of the outcomes of these consultations for each country. In summary, the consultations, which were based on key aspects of the Project Concept Note, indicated that the project will enhance access to affordable higher education through quality ODeL; enhance knowledge and skills in ODeL concepts and ICT enhanced education to institutions of Higher learning; provide learning opportunities for senior public and private sector employees who cannot find time to attend the traditional face to face classes; the ODeL centers may also enable Public-Private Partnerships in ICT education matters; contribute to equipping learners with relevant skills and knowledge for employment; strengthen existing E-learning centers and programs by improving ICT skill in ODeL methodologies; lower the cost of the academic programs significantly; inform and influence ICT agenda in the country and institution; improve social inclusion of women enrollment in higher education since learning pace is learner centered and is flexible; foster regional integration by offering courses on line and harmonized curriculum; and also improve efficiency and value for money since resources will be shared on a common platform including development and adoption of common education programs. Some target PIs were concerned about ownership of the ODeL centers and curriculum content at the end of the project. AVU will sign an MOU with target

institutions at the beginning of project implementation indicating that the centers will be fully owned by the PIs and the curriculum will be developed, approved and adopted by the PIs. Modules authors (subject matter experts) will also be acknowledged in each module by name, title and institutions.

2.6.3 The AVU's General Assembly in 2010 which also coincided with the concluding meeting of the previous project's teacher education program saw the participation of at least 6 new PIs whose main aim was to explore possibilities of benefiting from phase 2. AVU's involvement in regional and international fora including those organized by African Union Commission and UNESCO, has elicited a lot of interest from the PIs for Phase 2. Similar to Phase 1, the Ministries of Education in the target countries participated in selection of the target PI based upon established criteria and a process document developed for each category of PI. The criteria and process is attached in *Technical Annex 8*. Phase II of the project activities will enable scaling up of phase 1 benefits to more countries across the African continent. In addition, the project directly supports AVU current Business Plan which was developed by AVU and its PIs.

2.7. Bank Group experience, lessons reflected in project design

2.7.1 The project builds on the gains made in the completed Phase 1 and lessons learned. Under Phase 1, the project strengthened the capacity of the AVU and a network of institutions to deliver and manage quality ICT assisted education and training opportunities in science based teacher education programs. Ten ODeL Centres were established, to serve as country hubs, and staff trained in ODeL methodologies. Subject matter experts from the target Partnering Institutions (PIs) developed 219 modules in English, French and Portuguese for Mathematics and Sciences as well as ICT short courses. The modules are open resource and are uploaded on the AVU Open Educational Resource (OER) repository <http://oer.avu.org>. At completion, about 4000 students were enrolled for the first year using the modules and some institutions had produced additional ICT enhanced modules. The institutions also trained additional staff in ACEP.

2.7.2 There are four main lessons learned in phase 1 and taken into account in phase 2. First, access to higher education can be enhanced through application of ICT technologies. Second, regional integration can be fostered through harmonized curricula. Third, project outputs and outcomes can influence development and adoption of ICT related policies in target countries. Fourth, academic staff in African institutions have untapped potential as subject matter experts and have the ability to apply ODeL methodologies. Phase 2 is formulated within these lessons in order to strengthen and scale up phase 1 outcomes. The Bank is supporting similar projects such as the SADC Open and Distance Learning project and the WAEMU's Higher Education Project. Based on Phase 1 experience, projects of this nature required high level coordination, follow up and dedication.

2.8. Key performance indicators

Project performance indicators are outlined in the projects' log frame. They are: *Impact indicators*: Increase in student enrollment using ICT enhanced modules; *Key Outcome indicators*: (i) Increased access to higher education in the target programs; (ii) Increase in number of qualified females in science fields; (iii) Number of target PIs institutionalizing 'ICT in Education' policies and strategies ; and *Key Output indicators*: (i) ODeL centers established and functional ; (ii) Number ICT enhanced modules developed; (iii) Scholarships awarded; (iv) Number of Staff trained in ACEP ; (iv) number of policy briefs developed for ICT in Education.

III – PROJECT FEASIBILITY

3.1. Economic and financial performance

3.1.1 The economic and financial estimates of the Project are drawn from AVU phase 1 (covering three years ending in 2009/10) and the projections for the next four years based on AVU Business plan 2009-2014. Due to the history and nature of the activities, it is not possible to build cost and revenue streams spanning more than 5 years. Table 8 shows the beginning of a gradual shift from heavily donor-based to a more self-sufficient service fee based model. Section 4.4 ‘Sustainability’, contains details on revenue and costs (expenditures). The economic and financial analysis is further elaborated in *Technical Annex 7*.

Table 8: Income streams

Services	2009/10		2010/11		2011/12		2012/13		2013/14	
	%	Amt	%	Amt	%	Amt	%	Amt	%	Amt
Diploma and Certificate	37	386,382	59	641,455	60	653,455	58	653,455	58	653,455
Party Programs and Courses	0	2,500	3	37,500	7	75,000	10	110,000	10	110,000
Virtual conferences and eMeetings	0	3,750	1	11,250	2	25,000	2	25,000	2	25,000
AVU Webinars	0	2,000	2	20,000	2	24,000	2	24,000	2	24,000
Partner Webinars	0	1,000	1	16,000	2	20,000	2	20,000	2	20,000
Custom Content Development	0	5,000	3	35,000	6	60,000	5	60,000	5	60,000
Not-for-profit development services	24	248,700	0	0	0	0	0	0	0	0
Contributions and subscriptions	8	88,000	11	125,000	12	125,000	11	125,000	11	125,000
Development Partner contributions	10	103,000	9	103,000	0	0	0	0	0	0
Scholarship Fund	20	208,960	9	100,000	9	100,000	9	100,000	9	100,000
Total	100	1,049,292	100	1,089,205	100	1,082,455	100	1,117,455	100	1,117,455

3.1.2 **The project is economically sound and beneficial to higher education in Africa.** Its main benefits are drawn from efficiency gains as more results are achieved at reduced costs. Similarly, more partners will be drawn to the low cost virtual model of delivering university education in Africa. Sustainability of the AVU comes from the introduction of the fee based services whose contribution to revenue rises from 37% to 78% over the next four years.

3.2. Environmental and Social impacts

3.2.1 Environment. **The project is a category III operation.** The target institutions will carry out activities in accordance with the respective countries environmental regulations.

3.2.2 Climate Change. **The project environmental interference is considered minimal and therefore project contribution to climate change is also considered minimal.** The AVU will ensure equipment procured have minimal emissions.

3.2.3 Gender. **The project will implement the gender mainstreaming strategy and policy developed in Phase 1 through consultations with PIs and countries.** PIs, including module authoring academic staff, will be trained in gender in order to ensure the modules are gender sensitive to promote women participation in the science programs. Women will be supported through scholarships. At least 1000 female will be awarded scholarships to encourage them to take up courses in the Maths and Science Teacher Education Programs, Computer Science, Peace and Conflict Resolution. In addition, the project 20,000 students target also includes women. The scholarships will be awarded within the existing AVU scholarship Fund and justified at the end of the project. Scholarships for women to undertake bridging courses for these programs will be explored where responses to the degree level scholarships are minimal. Uptake of the females scholarship in Phase 1 was not fully realized since most women did not qualify for the science based teacher education degree programs. Bridging courses will therefore be explored in Phase 2 where applicable. The E-learning programs are flexible and therefore enable women, who mostly have time constraints, to study at their own pace.

3.2.4 Social and Economic Impact. **The development of skills is a key driver for economic growth, development and poverty reduction.** Higher education participation in Sub-Saharan Africa is as low as 4%. This requires innovative strategies, including use of ICT in higher education to increase access. An increase in enrolment of these selected demand-driven programs will contribute to reach the critical mass of professionals crucial to the continent's economic development, stability and peace. The project targets to enroll at least 20,000 students using the ICT enhanced modules. The project will assist target countries and PIs to develop and/or transform existing and specific education programs into affordable and flexible ICT enhanced programs taking into account quality and relevance in distance and eLearning. Affordability of Higher education in Sub-Saharan Africa is considered as one of the major hindrances to access. The E-Learning programs are expected to facilitate reduced costs in Educational and Training and also enable those already employed to upgrade their knowledge and skills to the required levels through the flexible learning approach.

3.2.5 Involuntary resettlement. **The project activities to be implemented do not involve any type of resettlement.** Given the nature of the project activities that do not involve civil works, there is no adverse impact on human settlements.

3.2.6 Regional integration. **The project will contribute to regional integration for social and economic development.** The collaborative strategy that the project will adopt in its implementation will create a platform for increased collaboration between the target participating universities and countries. The approach will also enhance networking among the PIs and further regional integration through development and delivery of common programs, the mobility of instructors and graduate, the network of Open Distance and eLearning/Learning Centers, and the multinational professional networks that will be created. The Open Educational Resource (OER) repository platform creates a platform for African institutions and academics to make their educational resources accessible to each other and to the World, consequently developing their competitiveness in knowledge generation. The professional networks will form communities of practice in various subject matters for continuous exchange and engagement across the PIs. A Multinational Teacher Education

Consortium was created in phase 1 to ensure continuity in the development of teacher education modules and enhance further integration beyond the project phase. The project will be implemented in 22 Anglophone, Francophone and Lusophone countries beyond technological, language and cultural barriers. Additional professional networks will be created; similar to the Teacher Education Consortium established under Phase 1. This will further contribute to regional integration through creation of networks by academic experts in the specific subject matters. The phase 2 will support the consortium to put in place the necessary operational structures. Project beneficiaries, including women, will increase their employability and entrepreneurship opportunities across borders as harmonized programs will be offered in the 22 countries. Similar to Phase 1, curriculum and quality assurance framework for target programs will be harmonized and approved by the respective institutions.

IV – IMPLEMENTATION

4.1. Implementation arrangements

4.1.1 The AVU is the project Executing Agency. The project will be supervised by the AVU Board of Directors (BoD). The BoD will ensure that the terms, conditions, project objectives and reporting schedules are adhered to. The Rector of the AVU is the interface between the BoD and a dedicated PCU. The project will engage the Ministers of Education to provide the needed support for the programs within their countries. The Rector will provide overall oversight to the project as guided by the Board of Directors. The Project Coordinating Unit (PCU) established under Phase 1 will have its capacity reinforced to manage the project. The AVU regional office in Dakar Senegal will also support project implementation in Francophone African countries. As in phase 1, AVU will play a “catalytic role” in project implementation. The main project activity, modules authoring and delivery, will be carried out by academic subject matter experts from the target institutions. AVU’s experience in phase 1 is an asset for this project. The Project Manager, whose qualifications and credentials shall be reviewed and approved by ADF, will report directly to the Rector of AVU.

4.1.2 A dedicated Project Coordinating Unit (PCU) that was established under Phase 1 will manage the project on a day-to-day basis to ensure that it is delivered on schedule and is successful in meeting its intended objectives. The PCU will comprise of: the Project Manager tasked with overall implementation of the project; a Senior ICT Officer in charge of establishment and/or upgrading of the ODeL Centres; A Senior Educationist in Charge of the Component 2; a Senior Project Coordinator; A Finance Officer; and a Procurement Officer. The PCU will also make use of the services of other existing AVU staff as well as technical assistance as and when needed. The PCU will prepare overall annual work plans for ADF approval. The Project Manager, assisted by the Finance Officer, will be responsible for financial control and internal auditing of the project. The Bank will ensure the PCU staff is trained on new procurement rules and procedures and required financial procedures. Providing evidence of the setting up of the core PCU staff shall be part of the conditions precedent to the first disbursement of the grant resources. The AVU will also provide the ADF with a detailed project implementation plan including an 18 months procurement plan.

4.1.3 As the project implementation agency, AVU will carry out the following tasks: (i) provide overall coordination of project activities; (ii) manage technical, administrative and financial implementation of project components; (iii) prepare procurement documents for goods and services; (iv) supervise implementation of the procured services including timely contracts execution; (v) prepare disbursement requests; (vi) provide, on request, guidance and support to partner institutions participating in project implementation; (vii) manage project finances, project accounting and procurement; (viii) prepare and transmit to the Bank quarterly progress reports

including financial status according to prescribed format; (ix) ensure proper auditing of project accounts and transmit audit reports to the Bank; ensure project baseline data is in place and updated annually for subsequent years; and (x) evaluate and monitor project outputs. The AVU will ensure that Participating Institutions have the necessary regulatory approval to receive Internet data over satellite or otherwise.

4.1.4 The implementation of the activities of the main Components 1 and 2 will proceed as follows. First, the Host University where the ODeL centre will be established under a duly signed general agreement that spells out expected results. Second, an agreement will also be signed with the Satellite bandwidth providers and Local Internet Service Providers. The establishment and/or upgrading of ODeL centers will be managed by a dedicated Institutions' Senior ICT Officer who will seek AVU technical assistance as need arises. *Component 2 Development of ICT-Enhanced Programs.* The ICT Programs will be managed by a dedicated Senior Educationist at the PCU. Similar to phase 1, the delivery of this activity will require close coordination with subject matter experts in target institutions. The institutions will also coordinate registration of students and the learners support; oversee application and adoption of quality assurance policy mechanisms by the relevant authority; liaise with the AVU headquarters for technical assistance.

4.1.5 The development of the programs will also require collaboration with national and other pan-African institutions. Therefore, AVU will seek partnerships with organizations such as Association of African Universities (AAU) for inputs into the curriculum development. The Ministry of education /Partner Institution will review and facilitate adoption of the curricula for the target programs areas. The target institutions will develop, deliver and award the programs. A strong coordination mechanism between the Ministries of education, Participating Institutions and the AVU is essential and is defined in *Technical Annex 4* which outlines implementation arrangements in detail.

4.1.6 Disbursement arrangements. Project funds will be disbursed according to the Bank's rules and procedures. The Bank's four disbursement methods will be available for the Project. It is envisaged that most of the payments will be made through the direct payment method. AVU will open one Special Account in US dollars for receiving funds for workshops for modules authoring and ACEP training; ODeL centers exit training and commission; as well as related operational costs and other smaller payments. Disbursement from the ADF resources will be made by direct disbursement to suppliers for the ICB and NCB packages, and for consultancy services including translation. The procedures that should be followed for each of the disbursement methods are indicated in the Bank's Disbursement Manual available on the Bank's website. A Disbursement Letter will also be issued at negotiations stipulating key disbursement procedures and practices. The AVU will be directly responsible for accounting for the project funds. The Bank will have the right, as reflected in the General Conditions to suspend disbursement of the Funds if reporting requirements are not complied with.

4.1.7 Financial Management. The financial management (FM) assessment of the AVU was carried out as detailed in Technical Annex 5. This assessment concluded that AVU has adequate FM capacity to recording accurate and complete transactions and delivering financial reports timely. As this is a multinational project, the issue of use of country Public Financial Management (PFM) systems does not arise. The project will make use of the AVU FM system as under phase 1. The AVU is headed by the Rector who is ultimately responsible for the project. The AVU Finance Department has a staff of three persons: a Chief Financial Officer (CFO) and two Assistant Accountants. Within the AVU there will be a Project Accountant. At the time of the assessment at project appraisal, only one Assistant Accountant was in place. The Board of directors of AVU had in principle approved the recruitment of the CFO. The AVU will use its Apogee accounting package supported by Vision for the recording and financial reporting.

4.1.8 **Audit. AVU outsources its internal audit function and so far this has worked well.** The AVU was up to date with all audit reports for Phase 1. The 2010 and last audit report for this phase 1 had an unqualified (clean) audit opinion and the auditors had no issues with the management letter. The project will follow the AVU financial year of 1st July to 30th June and its financial statements will be audited by the same audit firm acceptable to the Fund that audits the entity's accounts. The audit terms of reference will be agreed between AVU and the Bank. The audit report, complete with a Management Letter, will be submitted to the Bank within six months of the end of the financial year. The cost of the audit will be borne by the project.

4.1.9 **Procurement arrangements. Procurement of goods and acquisition of consulting services financed by the Bank shall be in accordance with the Bank's Rules and Procedures.** These are: "Rules and Procedures for Procurement of Goods and Works", Edition of May 2008; and "Rules and Procedures for the Use of Consultants", Edition of May 2008, using the relevant Bank Standard Bidding Documents, and the provisions stipulated in the Financing Agreement. AVU, at appraisal, developed a Procurement Plan (PP) for project implementation which provides the basis for the procurement methods. This plan will be reviewed and agreed upon during negotiations. The procurement arrangements are summarized in the Table below and detailed in *Technical Annex 6*.

Table 9: Summary of Procurement Arrangements

Packages	Cost (13.64 UA Million)			Procurement Method	Pre-Qualification (Y/N)	Bank Prior-Review
	Total	Bank Funded	AVU/PI Funded			
1. Goods						
1.1 ODeL Centre Equipment	1.869	1.869		ICB	N	Y
1.2 Furniture	0.099	0.099		NCB	N	N
1.3 Generator & Air Conditioner	0.171	0.171		NCB	N	N
1.4 Student Kits	0.194	0.194		Shopping	N	N
1.5 Motor Vehicles	0.077	0.077		Shopping	N	N
2. Works						
2.1 ODeL Works Rehabilitation	0.870		0.870	N/A	N/A	N/A
3. Services						
2.1 Translation Services	0.389	0.389		CQS	N/A	Y
2.2 Materials Development	0.689	0.689		Short List	N/A	Y
2.3 Program Delivery	0.200	0.200		Short List	N/A	N
2.4 Programs Development & staffing at PI	2.080		2.080	N/A	N/A	N/A
2.5 Long Term Technical Assistants	0.701	0.701		Short List	N/A	Y
2.6 Workshops & Miscellaneous activities	3.880	3.880		TBD annually	N/A	N
2.7 ODeL Centre Staffing	0.050		0.050	N/A	N/A	N/A
2.8 Local Internet Provision	0.331	0.331		TBD annually	N/A	N
2.9 AVU additional staffing	0.520		0.520	N/A	N/A	N/A
2.10 AVU Oversight	0.121		0.120	N/A	N/A	N/A
2.11 Others	1.400	1.400		N/A	N/A	N/A
Totals	13.64	10.00	3.64			

4.2. Monitoring

The project will use AVU's monitoring and evaluation structures. Project progress will be monitored through regular supervision missions, at least two per year, and submission of quarterly financial and project physical progress reports by AVU. Annual audit reports will be

submitted to the Bank for any given financial year. AVU will also ensure that the established project work plan and procurement plan are adhered to. The project key milestones are outlined in *Technical Annex 13* in line with project timeframe schedule and log frame. AVU will ensure the established project data base is updated annually to reflect actual status and later on inform the project completion report. Given that the project involves many activities and will be implemented in 22 countries across language barriers, an Evaluation and Monitoring Officer will be hired. The Bank regional office in Nairobi Kenya will work closely with AVU to ensure timely grant effectiveness and project execution. This support will include training the PCU on procurement and disbursement procedures. As outlined under 2.1.7, the target institutions will submit quarterly progress reports prepared by the Project Coordination Teams at the PI level and submit these to AVU.

4.3. Governance

The project is formulated within overall AVU strategic plan and institutional arrangements. A governance framework that comprises AVU Board of Directors will oversee the overall project management. The AVU Rector will provide day-to-day guidance to the PCU. A dedicated project Manager will be in charge of the PCU and will oversee the management and operation of the project. Each of the target institution will have a project coordination team led by a focal point staff that will be a senior staff in order to facilitate dialogue with the Institutions' management. The institutions' Vice Chancellor and or President or Rector will be the overall accounting officer for the project and will liaise with the Ministries of Education as necessary. The independent audits will provide information on the internal controls and point out areas that need to be strengthened. AVU developed a financial management and procedures manual; and strengthened its financial systems with support from the World Bank.

4.4. Sustainability

4.4.1 The AVU 2009-2014 Business Plan indicates that AVU will dedicate staff to the Fundraising / Resource Mobilization function and will structure activities so that they continuously expand and improve the AVU's effectiveness in this area. The AVU's resource mobilization activities will focus on procuring funding for: (i) ODeL-related development services that the AVU has traditionally provided in the past ; (ii) Scholarships / bursaries for individual or group participation in AVU programs & courses; and (iii) Projects that do not fit into the AVU's new service and fee structure. In these cases, the AVU will seek funding to cover estimated direct project costs as well as a management fee of 10-25% to cover overhead and administrative costs that are indirectly driven by the project.

4.4.2 The contribution margin from the AVU's fee-based services and the management fees from donor-funded projects will cover the AVU's organizational overhead. AVU's long-term goal is for its fee-based services to cover all of its overhead costs, so that not-for-profit services require funding only for their direct activities. The five-year financial projections is available in spread sheets which display the beginning of this gradual shift of AVU funding from heavily donor-based to a more self-sufficient service fee-based model. The net result of these projections is a trend toward a moderate but growing annual surplus at the end of the five-year period (USD 15,000 in FY 2013 / 14). As the AVU continues to increase the efficiency of its program delivery and diversify its offerings, it will further reduce its dependence on donor funding and / or specific channels and reduce or eliminate the corresponding risk to the long-term viability of its organization.

4.4.3 As a result of these changes, the audited accounts show that AVU has moved from a net deficit operating results in 2007 of USD 1,181,518 to a net positive balance of USD

883,290 in 2009. The Financial report for May 2011 AVU Board Meeting , shows a net surplus of USD 200,000. Likewise, liabilities were reduced by 90% from USD 3,197,877 in 2007 to USD 278,034 in 2009. If the current momentum to implement the AVU business plan is maintained, AVU will further strengthen the sustainability of its activities. The Economic and Financial Analysis, further outlines measures AVU is taking in Phase 2 for efficiency gain.

4.4.4 At target Institution level, sustainability of project outputs and outcome is in built in project design. The target PIs will have agreements with AVU in each target country to ensure ownership and institutionalization of interventions for sustainability purposes. The agreement is with regard to sustainability of the programs, the ODeL center, ACEP as well as the Teacher Education and Computer Science Programs. ODeL centres' are used for as a hub for distance and eLearning programs development, delivery and management while the ACEP program trains PIs on instructional design, program delivery, and management and financing of ODeL programs. Similar to Phase 1, ACEP's trainees are expected to conduct cascade training in each institution. The target PIs will provide the space and a building for the ODeL. The existing academic staff will be trained in writing courses in ODeL format and thereafter author the specific modules virtually and through organised workshops. Additional relevant staff at the PIs will be trained in web design, ICT delivery and ODeL governance to support delivery of the authored modules at the PI level. The professional networks or Community of Practice to be created will ensure the programs are updated beyond the project period and also provide a platform for the subject matter experts to continue networking beyond the project. The scholarship fund may not be sustainable. However, it is envisaged that the target PIs will institutionalize the gender mainstreaming strategy which highlights key intervention in addressing gender parities in Science and Math courses.

4.5. Risk management

4.5.1 This project builds on lessons learnt from Phase 1, including mapping of risks. The main risks are: (i) females qualifying for science based course; (ii) active participation of fragile states; and (iii) the inherent complexity of multinational operations that makes implementation challenging. The potential risks and mitigation measures are shown in the table below.

Table 10: Project Risks and Mitigation Measures

RISK	RATING	MITIGATION MEASURES
Inadequate number of female students qualifying for the target science programs	M	(i) Strengthen the mainstreaming of gender in AVU programs. (ii) The scholarship fund will also support relevant existing bridging courses for target programs.
Inadequate participation of academic staff from PIs in fragile states in the development of modules	M	(i) Similar to Phase 1, develop a strategy to ensure active participation of these PIs as required with a contingency budget to support travel. These include "pairing for mentoring" with other PIs and additional training where need be.
There is an inherent complexity to multinational operations that makes implementation challenging	L	(i) AVU's experience in managing Phase 1 in 10 countries. However, AVU works with institutions in 27 countries in other initiatives. (ii) AVU's effective use of ICT to communicate and manage in several countries (iii) AVU's regional office in Dakar which also acts as a sub head office

4.5.2 In addition to these risks, the appraisal team carried out a thorough assessment of financial and fiduciary risks. These risks and their related mitigation measures are outlined in table 1 of *Technical Annex 5*.

4.6. Knowledge building

4.6.1 The project will support research and documentation in ICT enhanced education. The information generated will better equip AVU and other institutions including the Bank, to provide technical support to partnering institutions and countries in Education ICT Policy and strategies development; as well as provide advice in quality assurance mechanisms in E-learning. Through ACEP, phase 2 will continue to enhance the capacities of target Partnering Institutions to deliver quality; flexible; relevant; and affordable ICT enhanced educational science and mathematics programs in the countries. This Learning Architecture is a continuum from a face- to-face learning environment, to one with high-end technology to ensure access to education programs through flexibility. The ODeL centers will serve as country hubs for the development and design of additional e-Learning materials beyond the project period. This learning architecture is a continuum from a face- to-face learning environment, to one with high-end technology to ensure access to education programs through flexibility. The ODeL centers will serve as country hubs for the development and design of additional e-Learning materials beyond the project period.

4.6.2 The course modules will be uploaded on an E-platform, an Open Educational Resource (OER) <http://oer@avu.org> which enables institutions, beyond the target PIs, to access the program modules developed by the project. The project will therefore contribute to a common regional access to learning resources in higher education institutions in Eastern, Southern and Western Africa. Professional networks (Communities of Practice), similar to the Teacher Education Consortium created in Phase 1, will further enhance interaction of the academic staff beyond the project period and most important; ensure the course modules are updated.

V – FINANCING INSTRUMENTS AND CONDITIONS

5.1. Financing instrument

The financing instrument proposed is a grant of UA 10.00 million to the African Virtual University (AVU).

5.2. Conditions associated with Bank's intervention

Conditions Precedent to Entry into Force of the Grant Agreement: “Conditions precedent to entry into force of the Grant Agreement shall be subject to fulfillment of section 10.01 of the General Conditions Applicable to the Protocols of Agreements for the Grants of the Fund”; and

Conditions precedent to First Disbursement: The obligations of the Fund to make the first Disbursement shall be conditional upon the fulfillment of the following conditions:

The Borrower shall have provided evidence, in form and substance satisfactory to the Fund of:

- (i) establishment of the core Project Coordination Unit (PCU) staff comprising of: a Project Manager tasked with overall implementation of the project; a Senior ICT Officer in charge of establishment and/or upgrade of the ODeL/Learning

Centres; a Project Accountant; a Senior Project Coordinator; and a Procurement Officer (para 4.1.2);

- (ii) the opening of two Special Accounts for foreign and local currency to receive the proceeds of the grant (para 4.1.6).

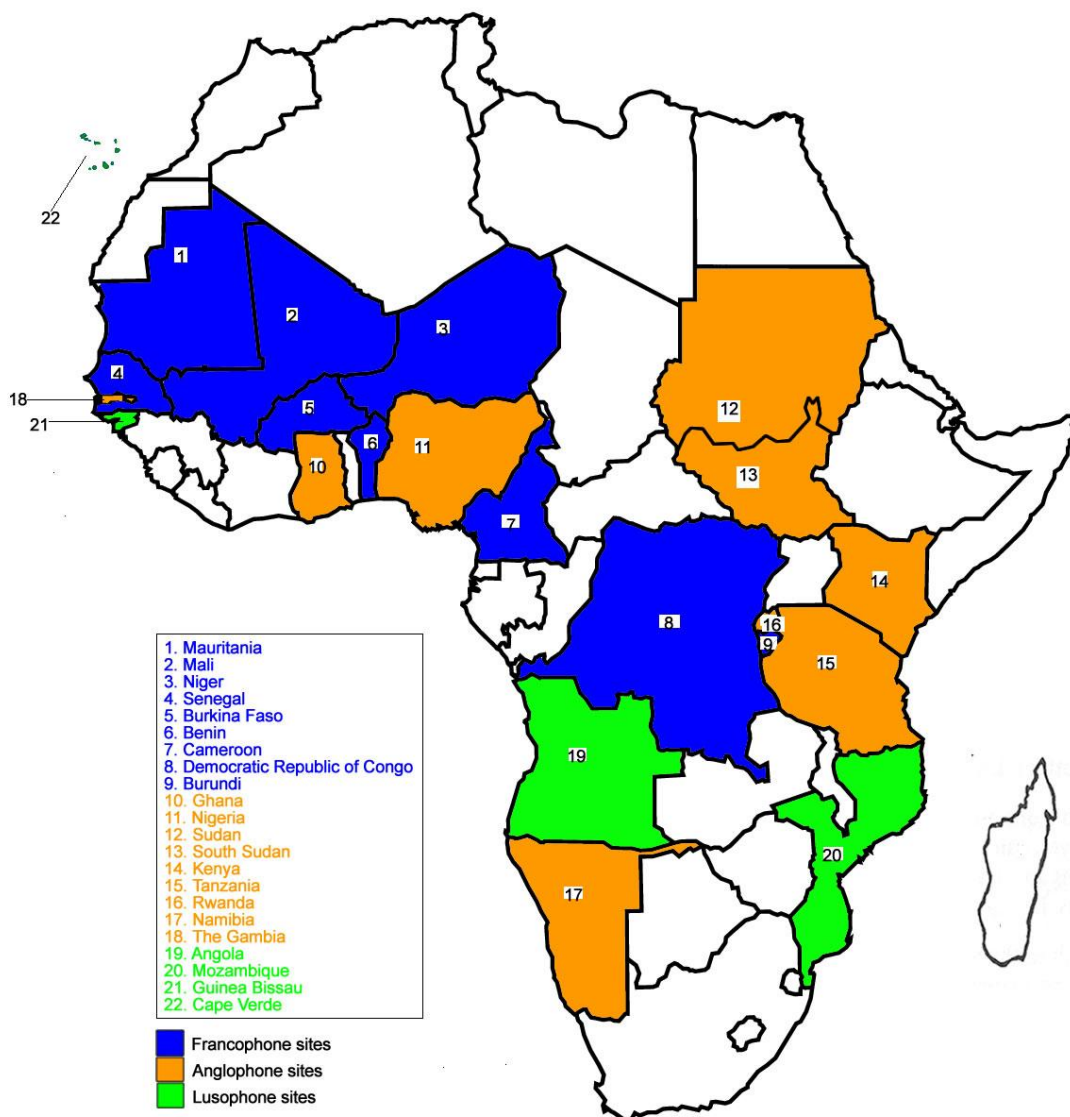
5.3. Compliance with Bank Policies

This project complies with all applicable Banks' relevant policies. These include: (i) Bank's Regional Integration Strategies (RISPs) for Central, Eastern and Southern Africa 2011-2015; (ii) Medium Term strategy 2008-2012; (iii) 2008 Higher Education Science and Technology (HEST) strategy; and (iv) ICT Operations Strategy.

VI – RECOMMENDATION

Management recommends that the Board of Directors approve the proposed grant of UA 10.00 million to the African Virtual University for the purposes described in this report and subject to the conditions stipulated. The proposed project is the second phase of a successful operation funded by the Bank. The completed phase 1 demonstrated the role of ODeL strategies in enhancing access to HEST and the potential among academic staff to develop and deliver programs in ODeL format. It introduced an advanced approach of delivering ICT based quality education. Expanding the achievements of Phase I will benefit RMCs in access to HEST for growth and development. The approach will also enhance networking among the PIs and further regional integration through development and delivery of common programs, the mobility of instructors and graduates, the network of ODeL Centers, and the multinational professional networks that will be created.

AVU PHASE II PROJECT: MAP OF PROJECT AREA



This map was provided by the African Development exclusively for the use of readers of the report to which it is attached. The names used and borders shown do not imply on the Bank and its members any judgment concerning the legal status of territory nor any approval or acceptance of these borders.

AVU PHASE II PROJECT: TEST FOR REGIONAL PUBLIC GOOD ELIGIBILITY

No	Criterion	Justification
1.	Non rivalry character	The proposed project focus, aims at consolidating and scaling up phase 1 project outputs with an aim to strengthen capacity of target Partnering Institutions(PIs) to deliver and manage science based quality ICT enhanced education and training.
2	Non excludability character	The project will be implemented in 24 Anglophone, Francophone and Lusophone countries beyond technological, language and cultural barriers. Additional professional networks will be created;similar to the Teacher Education Consortium established under Phase 1.
3	Public interest and ownership	Following the completion of Phase I, the AVU has received requests from PIs interested in joining its network to benefit from the outputs of the concluded project. In particular, the AVU's involvement in fora organized in Africa with stakeholders such like the African Union Commission and UNESCO, and exhibitions in the annual eLearning Africa (ELA) conferences in 2008, 2009, and 2010 has elicited a lot of interest from the PIs proposed in this project. Additionally, the AVU's General Assembly in 2010 which also coincided with concluding meeting of the previous project's teacher education program saw the participation of new PI whose main aim was to explore possibilities of benefiting from AVU programs.
4	Regional dimension	The collaborative strategy that the project will adopt in its implementation will create a platform for increased collaboration between the target participating universities and countries. The creation of networks decerscribed in 2 above, will contribute to regional integration. The networks will be composed of academic experts in the specific subject matters. A Multinational Teacher Education Consortium was created in phase 1 to ensure continuity in the development of teacher education modules and enhance further integration beyond the project phase. The phase 2 will build on this model for the new programs and support this consortium to put in place the necessary operational structures.
5	Strategic alignment with the Bank's strategic focus	<u>The Bank's Medium Term Strategy (MTS) 2008 to 2012</u> , identifies ICT development and Higher Education, Technical and Vocational Training as priority investment areas. The MTS also emphasises on regional integration. The proposed project will enable development of common ICT enhanced programs across the regions, similar to the common teacher education programs across 10 countries in Phase 1. The Bank's <u>2008 Higher Education Science and Technology (HEST) strategy</u> emphases on quality tertiary level training by improving conditions for science and technology innovations through, among other interventions, ICT integration; supporting National and Regional Centers of Excellences; building HEST infrastructure; reviewing and upgrading of curricula and pedagogy to be in line with required HEST; promoting joint research activities within networks; and promotion regional Integration though HEST.
6	Catalytic and upstream role	AVU will play a "catalytic role" to enable the established ODeL Centers at forty (40) PIs to develop ICT enhanced programs in other science and technology fields. Staff at the PIs will be trained in writing courses in ODeL format, web design, ICT delivery and ODeL governance. AVU has gained experience and learnt invaluable lessons in ODeL methodologies, particularly in the implementation of the first phase. The Bank could harness this experience for the benefit of more countries and ensure documentation and research is supported to generate ODeL knowledge in HEST to inform future ICT enhanced HEST education. AVU is well placed to implement a more comprehensive project in a more efficient and timely manner.
7	Incremental benefit	Consolidate and scale up project outcomes from Phase 1. The ICT enhanced Teacher Education Programs in Mathematics and Science will be replicated in twenty (20) PIs that have expressed interest in offering the program and joining the Teacher Education Consortium which will ensure the modules are up-to-date. 219 modules are available in English, French and Portuguese.

GLOSSARY OF KEY TERMS

Connectivity: A measure of per-capita number of Internet hosts, personal computers, telephone mainline and mobile subscribers.

Digital divide: the gap between individuals, households, businesses, countries and geographic areas at different socio-economic levels with regard to both their opportunities to access ICT and to their use of the Internet for a wide variety of activities.

Distance education: a set of teaching and learning strategies or education methods that can be used to overcome spatial and temporal separation between educators and learners; communication of curriculum takes place primarily through use of educational resources, drawing on different media as necessary.

Dual-mode or mixed-mode education institutions: institutions, which establish parallel administrative systems to offer both distance and face to face education.

e-Learning: a resource-based learning which involves communication of curriculum between learners and educators, mostly through the use of computer-based resources such as the Internet.

Gender awareness: means the ability to identify problems arising from gender inequality and discrimination, and to know the difference in roles and relations of women and men and how this results in differences in power relations, status, privileges and needs.

Gender mainstreaming: a process of identifying and taking full account of the relationships between women and men (given a development issue or theme) in all policies, strategies, programs, administrative and financial activities. Gender is mainstreamed in all AVU's programs and activities.

Gender training: means providing people with formal learning experiences in order to increase their gender awareness.

ICT: Technologies, including both computer systems and telecommunications systems for collecting, storing, processing and communicating information.

Lead Partner University: A university that takes a lead role in coordinating the delivery of teaching and learning of a specific program that is being offered by universities on the AVU network.

Open learning: a system of learning in which a student can access education irrespective of entry qualifications because the system has built-in approaches of assessing the pathway that various students will pass through, depending on their entry qualifications.

Open school: an educational institution providing courses and programs predominantly through the use of distance education methods.

Partner Institution: An institution of tertiary education entering into a formal agreement with the AVU to host an AVU center or participate in AVU's programs and activities.