

AFRICAN DEVELOPMENT BANK
ADB/BD/IF/2010/05

AFRICAN DEVELOPMENT FUND
ADF/BD/IF/2010/06
January 6, 2010
Prepared by: OINF
Original: English

Probable Date of Board Presentation:
Not Applicable

FOR INFORMATION

MEMORANDUM

TO : THE BOARDS OF DIRECTORS

FROM : Cecilia AKINTOMIDE
Ag. Secretary General

SUBJECT : INFORMATION NOTE ON THE BANK GROUP INFORMATION AND COMMUNICATIONS TECHNOLOGIES (ICT) ACTIVITIES*

Please find attached hereto, for information, the above-mentioned document.

Attach.

Cc : The President

*Questions on this document should be referred to:			
Mr. B. PITTMAN	Vice President	OIVP	Ext. 2002
Mr. G. MBESHERUBUSA	Director	OINF	Ext. 2034
Mr. A. DIALLO	Division Manager	OINF.3	Ext. 2125
Mr. S. JACK	Chief Telecom Engineer	OINF.3	Ext. 3000
Mr. A. YAHIAOUI	Chief ICT Officer	OINF.3	Ext. 2471
Mr. E. YONAZI	Principal Telecom Engineer	OINF.3	Ext. 2732

Table of Contents

1. Background	1
2. Implementation Status of Bank Group ICT Strategy	2
2.1 Broadband Infrastructure	2
2.2 Policy and Regulations	2
2.3 Capacity building	3
2.4 e-Applications and Services	3
2.5 Other Activities	3
2.5.1 African Economic Outlook	3
2.5.2 PIDA	3
2.5.3 AU Heads of State Meeting	4
2.5.4 ICT Website	4
3. Conclusion	4

ATTACHMENT: ANNEX1

Acronyms and Abbreviations

ADF	African Development Fund
AfDB	African Development Bank
CAB	Central African Backbone
CAETIC	Centre Africain d'Excellence en TIC
CEMAC	Communauté Économique et Monétaire de l'Afrique Centrale
DFC	Detailed feasibility Study
DGF	Development Gateway Foundation
EAC	East African Community
EASIAS	Environment and Social Impact Assessment Study
EASSy	East Africa Submarine Cable System
ECOWAN	ECOWAS Wide Area Network
ECOWAS	Economic Community for West African States
ICT	Information and Communications Technologies
ITU	International Telecommunications Union
MIC	Middle Income Country
NEPAD	New African Partnership for Development
OINF	Infrastructure Department
OIVP	Infrastructure, Private Sector and Regional Integration Vice Presidency
RMCs	Regional Member Countries
RMCC	Establishment of Regional Maritime Communication Centre
SADC	Southern African Development Community
SATA	Southern African Telecommunications Association
SAR	Strengthening of Search and Rescue
TAF	Technical Assistance Fund
UMA	Maghreb Arab Union
WB	World Bank

Information Note on the Bank Group Information and Communications technologies (ICT) Activities

1. BACKGROUND

1.1 In October 2008, the Board approved the Bank's ICT Operation Strategy whose main objective is to make an important contribution to poverty reduction and economic growth of RMCs by increasing Bank's role in extending access to ICT infrastructure, stimulating private sector investment and ultimately enhancing good governance through efficient delivery of public services such as education and health which would ultimately contribute to the Millennium Development Goals.

1.2 The strategy is intended to guide staff in the identification, preparation, and implementation of financing operations and in the execution of non-financing activities in the ICT sector. In the short term, the Bank would concentrate on two pillars: (i) regional and national backbones - direct financing of broadband infrastructure and (ii) enabling policy and regulatory environment - support to Africa's efforts to attract private financing flows through improvement of policy and regulatory frameworks, with the overriding objective of bringing about economic growth and poverty alleviation.

1.3 In the medium term, the Bank would work towards stimulation of the demand for ICT networks and services by promoting e-government and connectivity to schools, universities, health institutions and through customized response to the needs of Fragile States, Low and Middle Income Countries. Internal and external capacity building would be cross-cutting and an on-going activity in both the short and long term periods.

1.4 The Bank's ICT Strategy is in line with the priorities defined in the Bank's Medium Term Strategy (MTS) 2008-2012 which considers "Infrastructure development very critical for growth and for enhancing competitiveness, and which calls for Infrastructure activities to be significantly scaled up during the MTS II period, with investments focused mainly on energy, transportation, water and sanitation, and ICT." On ICT, the MTS focuses on reducing the digital divide between countries and regions, and between towns and rural areas.

1.5 In order to ensure internal alignment and knowledge building, the Board also approved the creation of an ICT focal point that has a coordination role which reports to the Vice President, OIVP during the interim period. At the same time, Management established a work program and an implementation plan on the following key areas: policy and regulatory design, infrastructure development and investment, integration of ICTs in development, knowledge management and research, internal capacity building and coordination, and international cooperation activities.

1.6 Following the African Economic Outlook presentation at the Board on 21st April 2009, the Board requested an information note on ICT activities. This note is therefore intended to inform the Boards of Directors on progress in ICT operations.

2. IMPLEMENTATION STATUS OF BANK GROUP ICT OPERATIONS STRATEGY

PILLAR 1: FINANCING OF BROADBAND INFRASTRUCTURE

2.1 Broadband Infrastructure

i) **Pre-investment studies:** Successful deployment of broadband communications requires investments in international connectivity, regional backhaul links that interconnect countries, national backbone that access beyond major cities, last mile connection to rural and underserved areas and stimulation of demand. The Bank has been following closely the actions of both public and private ICT players in Africa in an attempt to partner for the implementation of Bank's ICT Strategy. At the Connect Africa Summit in Kigali (2007), the Bank made a significant commitment to scale up its investments in ICT. Consequently, the Bank provides funds to foster physical infrastructure deployment, mostly through facilitating pre-investment/feasibility studies, and PPP financing of projects through the Private Sector window. The total number of active projects and studies amount to 14 (fourteen) and they are in varying stages of implementation.

Attached as Annex 1 is a table summarizing implementation status of each project/study (Pillar 1)

ii) **Supporting Infrastructure Networks:** In addition to the pre-investment studies, and in order to strengthen the broadband infrastructure in Africa, the Bank has also been promoting synergies between infrastructure networks of various sectors (transport, energy, and water and sanitation) in all its projects. As a result, the majority of the Bank's infrastructure studies and projects currently include fiber optic cable components in roads, transmission lines and railroads. Such efforts of incorporating ICTs in the design of infrastructure projects such as roads and power transmission lines will be used as an important factor in Bank projects to optimize resources, mainstream ICTs in integrated rural development and reduce the implementation costs.

PILLAR 2: POLICY AND REGULATIONS

2.2 Supporting ICTs national policy and regulatory reform involves technical assistance to resolve market efficiency gaps; and promotion of regional policy and regulatory harmonization. This includes carrying out studies in major regional policy challenges and the promotion of dialogue between countries to facilitate such issues as fair pricing of cross-border networks, non-discriminatory interconnection regimes and infrastructure sharing.

ONGOING STUDIES & PROJECTS	
Public Sector Operations	Private Sector Operations
1. Central Africa Backbone (CAB) Program;	11. EASSy;
2. Southern Africa Telecommunications Association (SATA) Backhaul Links;	12. Rascom;
3. East African Community Broadband ICT Infrastructure Network (EAC-BIN);	13. New Dawn;
4. ECOWAS Wide Area Network (ECOWAN);	14. Main One; and
5. North African Backbone (UMA);	15. Helios Shared Telecom
6. Seychelles Fiber Optic Backbone;	16. Infrastructure
7. Egypt Navigation Sattelite (NAVISAT); and	
8. Maritime Communications for Safety on Lake Victoria	
9. ICT Centres of excellence (Tunisia, Mali and Rwanda)	
10. Mauritian ICT Strategy Plan.	

The studies supported by the Bank such as SATA Back haul links and Central Africa Backbone (CAB) projects, North Africa Backbone project, and ECOWAN have Policy and Regulatory components that seek to address matters (cross-border interconnection cost and terms, and open access etc.) that affect implementation of those projects. The Bank, in collaboration with other partners, continues to address policies and regulatory issues for building ICT national and regional broadband infrastructure networks. So far, two events related to this Pillar took place namely a regional policy dialogue workshop for ten Eastern Africa countries held in Tanzania and a policy consultation dialogue between the Tunisian and Republic of Korea governments on Tunisia's telecommunications policy. **Attached as Annex 1 is the implementation status of Pillar 2.**

OTHER OPERATIONS STRATEGY FOCUS AREAS

2.3 Capacity Building Programs: As a cross-cutting activity, capacity building is an integral component of the short and medium term ICT strategy of the Bank. Bank programs include addressing capacity gaps of RMCs' officials and raising the awareness of government officials and Bank staff on the value of ICT in development. The establishment of three ICT centers of Excellence (Mali, Tunisia and Rwanda), delivery of ICT awareness programs to Bank staff (30 Sectors' professionals) and officials of RMCS (44 officials and 7 Bank staff through training program at KADO/NIA of Republic of Korea) are components of this program and its implementation status is **also attached as annex1.**

2.4 e-Applications & Services: The Bank's ICT strategy for medium term (2010–2012) is to create affordable access, competitiveness and economic growth in regional member countries through expanded use of ICT by institutions (including governments), enterprises and the public at large. A significant number of Bank projects in OSGE, OHSD and OSAN already include ICT components.

2.5 OTHER ACTIVITIES

2.5.1 African Economic Outlook 2009: Innovation and ICT in Africa

The focus of the 8th edition of the annual *African Economic Outlook* (AEO) was Innovation and ICT in Africa. EDRE and OINF were actively involved in the preparation and dissemination of the report of the focus theme. The report finds that despite many challenges, Africa is using ICT innovatively to improve the business environment by contributing to market development, overcoming traditional infrastructure constraints and reducing business costs. The report particularly states that, innovation requires better public policies and that Government's role as a regulator will be particularly important in realizing the promise of ICT and the innovative applications it makes possible. The report, which was widely distributed, identifies many examples of good practice in this respect which are expected to be more widespread in future.

2.5.2 Program for Infrastructure Development in Africa (PIDA)

The African Union Commission (AUC), NEPAD Secretariat and the Bank are jointly undertaking a study aimed at developing a comprehensive Program for Infrastructure Development in Africa (PIDA). The study covers the four main infrastructure areas namely transport, energy, ICT and water and sanitation. The study seeks to institute a coherent strategic framework to serve as the basis for defining, implementing and monitoring infrastructure development on the continent as well as establishing partnerships that can promote economic integration and support the development of trade

on the continent. The ICT component of the PIDA strategic framework will take into consideration the key pillars of the Bank's Operational Strategy.

2.5.3 AU Heads of State Summit on ICT (January 2010)

The forthcoming Heads of State - African Union Summit scheduled for January 2010 is dedicated to ICT whose key theme will be "Information Technologies in Africa: Challenges and Prospects for Development". The Bank, in collaboration with AUC, ATU, NEPAD, ITU, UNECA, and RECs, is actively involved in the experts and Ministerial Bureau preparatory meetings which deliberate on the sub-themes and key policy messages that need to be presented to the Heads of State for their deliberations.

2.5.4 ICT Website: A new web page on ICT has been designed and incorporated in the newly launched AfDB web site. This has been a collaborative effort of various departments including ERCU, OPSM and OINF. The page covers major ICT topics including Bank group strategy, ICT projects and programs, funding resources and services, best practices, and ICT support and service contacts. The web URL for the page is: <http://www.afdb.org/en/topics-sectors/sectors/information-communication-technology/>

3. CONCLUSIONS

3.1 Most of projects under study will be ready for investment in 2010/2011. It is expected that they will get implemented in a Public Private Partnership arrangement.

3.2 The Bank's ICT interventions will be evaluated in September 2010. Taking stock of progress made and changes that may have occurred by then in this fast-changing industry, Management will inform the Boards of Directors any further support that may be required for the sector.

3.3 The Boards of Directors are invited to take note of the information contained in this report.

IMPLEMENTATION STATUS

ANNEX 1

INFRASTRUCTURE, POLICY/REGULATION AND CAPACITY BUILDING

1.	ICT BROADBAND INFRASTRUCTURE DEVELOPMENT:	
	<p><u>A. Central Africa Backbone (CAB) Program (US\$160m) – Joint World Bank-AfDB program :</u></p> <p>Improving domestic and regional backbone infrastructure by financing a fiber-optic link to connect Chad, CAR and Cameroon. This link will provide high-bandwidth access to the other countries in the region to each other and to the international submarine infrastructure that lands in Cameroon.</p>	<p>Pre-investment studies underway with contributions of \$1,900,000 (WB) and \$1,089,224587 (AfDB) which will be finalized by summer of 2010.</p>
	<p><u>B. Southern Africa Telecommunications Association (SATA) Backhaul Links:</u></p> <p>The SATA Backhaul Links project, which is closely linked to the Eastern African Submarine System (EASSy) project, involves the development of an optical fiber submarine cable network with onshore landing points at strategic locations along the Eastern Africa seaboard. The project will cover a distance of 9,900 km running from Mtunzini in South Africa to Port Sudan in Sudan.</p>	<p>Pre-investment studies underway with Bank contributions of \$490,000. Study will be completed before the end of 2009.</p>
	<p><u>C. East African Community Broadband ICT Infrastructure Network (EAC-BIN):</u></p> <p>This is a detailed pre-investment analysis/study aimed at implementing an integrated East African Broadband ICT Infrastructure Network (EAC-BIN) that would provide cross border connectivity between EAC Partner States and link up with global gateways through submarine fibre cable systems.</p>	<p>The Bank has provided a financial grant of US\$ 450,000 secured through NEPAD-IPPF for the study and the feasibility study is now underway and is expected to be completed in December 2009.</p>
	<p><u>D. ECOWAN:</u></p> <p>The ECOWAS Wide Area Network (ECOWAN) infrastructure linking the Commission Headquarters, other ECOWAS Institutions and Member States is expected to address the cross-border connectivity challenge within the West African region and cut down on costs.</p>	<p>The Bank provided a US\$ 498,520 grant to ECOWAS through NEPAD-IPPF. The feasibility study is being completed.</p>
	<p><u>E. North Africa Backbone (UMA):</u></p> <p>This consists of two feasibility studies for: (i) the North Africa Backbone fiber optic network, and (ii) improving the legal and regulatory framework of the ICT sector in the region.</p>	<p>The Bank provided assistance to UMA in the preparation of the TORs of the two studies and obtained grants from IPPF-NEPAD to engage a consulting firm to undertake the studies.</p>

	<p>F. <u>Egypt Navigation Satellite (NAVISAT):</u></p> <p>This is a Navigation Satellite project feasibility study – comprising of four components - aimed at improving Communications, Navigation and Surveillance – Air Traffic Management services that would provide cost effective satellite communications and major improvements in the aeronautical services, thus enhancing safety and efficiency of air transport</p>	<p>The detailed feasibility studies have started after a Grant of US\$ 900,000 from the Bank’s Middle Income Countries (MIC) Technical Assistance Fund (TAF) was granted.</p>
	<p>G. <u>Seychelles Submarine Cable System :</u></p> <p>The Government of Seychelles and AfDB have embarked on a project study on Seychelles Fiber Optic Backbone. In order to meet the anticipated increase in capacity demand, the Government intends to invest in fiber optic cable system connecting Seychelles to a Submarine cable system which is a key strategic infrastructure pre-requisite for its economic positioning and maintaining its development level in ICT regionally.</p>	<p>Preparations for a detailed feasibility study on the project is being finalized and the services of a consulting firm to undertake the detailed feasibility study (DFS) and Environment and Social Impact Assessment Study (EASIAS) has been procured. A financial grant of US\$ 450,000 for the study has been secured through the Middle Income Country (MIC) Trust fund.</p>
	<p>H. <u>Maritime Communications for Safety on Lake Victoria:</u></p> <p>This is a detailed pre-investment analysis that would define the inter-relation between the commercial and safety components (non-commercial) of the Maritime Communications for Safety on Lake Victoria.</p>	<p>The Bank approved a grant of US\$ 495,000 secured through NEPAD-IPPF to Lake Victoria Basin Commission of East Africa for engaging a consulting firm to conduct the feasibility study.</p>
	<p>I. <u>EASSy:</u></p> <p>The EASSy project comprises the construction of a submarine fiber-optic cable along the east coast of Africa to connect 20 coastal and land-locked countries to each other and to the rest of the world. The cable will run from Port Sudan, Sudan to Mtunzini, South Africa, covering about 9,000 km.</p>	<p>The project’s total cost was estimated as USD 235 million. It is sponsored by the 29 leading telecommunications operators from Eastern and Southern Africa. The Bank is providing a senior loan of USD 14.5 million representing about 12.5% of the total project cost. However, the launch of commercial operations is now expected in 2nd quarter 2010.</p>
	<p>J. <u>Rascom:</u></p> <p>The Rascom project entails the construction, launch and operation of a pan African telecommunication satellite providing bandwidth lease services, broadband connectivity and rural telephony solution for telecom operators in Africa.</p> <p>The Project will provide telecommunication access to rural communities, facilitate intra-African connectivity and to reduce international and domestic telecommunications costs for operators. It will also lower tariffs for end-users and lower outflow of hard currency from the continent.</p>	<p>The Project’s cost was USD 380 million. The Bank is providing a senior loan of USD 50 million, whose first disbursement occurred in Q2 2009. Rascom’s first satellite was launched in December 2007. Due to an helium leak experienced during launch, its life expectancy decreased from the initial 15 years to 22 years. A replacement satellite is currently under construction and is expected to enter service in third quarter 2010.</p>

	<p><u>K. New Dawn:</u></p> <p>The New Dawn project entails the construction, launch and operation of a 30 physical transponder satellite system into the 33° East orbital location, ideally positioned to serve the African continent. Its main applications include (i) cellular backhaul for mobile operators to interconnect their remote base stations (ii) Internet backbone for Internet Service Providers to access international bandwidth (iii) connectivity for business and institutions located in areas lacking terrestrial infrastructure and (iv) TV distribution and relay for media companies.</p>	<p>The project's total cost is USD 240 million and its main sponsor is Intelsat, the world leader in satellite operations. The Bank is providing a senior loan of USD 30 million. Signature of the Bank's loan agreement is expected shortly.</p>
	<p><u>L. Main One:</u></p> <p>The project will involve laying 7,000 kilometers of submarine fiber optic cable with a capacity of 1.92 terabits per second. Based on a trunk-and-branch topology, it will run between Seixal in Portugal, Accra in Ghana, and Lagos in Nigeria, with branching units to the Canary Islands, Morocco, Senegal, and Côte d'Ivoire. The Main One cable will lead to greater regional and international connectivity and a reduction in the cost of communication.</p>	<p>The project's total cost is USD 268 million and is sponsored by the African Development Corporation located in Lagos, Nigeria. The Bank will finance USD 60 million in senior debt. Loan documentation is currently being finalized and signature is expected in November 2009. The lay-down of the cable has started and its commercial launch is expected in June 2010.</p>
	<p><u>M. Helios Shared Telecom Infrastructure Project:</u></p> <p>The Project entails the construction of 877 telecom towers in Nigeria, corresponding to the 2009-2010 expansion plan of Helios Towers Nigeria (HTN), the first tower sharing company in Africa. The project will benefit telecom operators who by sharing and leasing towers, free up capital resources to enhance the quality of the service and the coverage.</p>	<p>The project's total cost is USD 345 million. The Bank will finance USD 30 million of senior debt. Loan negotiations is on-going and financial closure is expected before the end of 2009. The borrower's expansion plan has already started with about 350 towers so far completed. .</p>
<p>2.</p>	<p>POLICY AND REGULATION</p>	
	<p><u>A. EAC ICT Policy & Regulatory Workshop (October 2009):</u> Participants were drawn from government ministries responsible for the development of ICT policy, regulatory agencies of ten Eastern African countries, AfDB, Regional Economic Communities, and the Republic of Korea. The objectives were to dialogue on issues facing the region relating to convergence in the ICT industry.</p>	<p>A report has been prepared to discuss the recommendations of the workshop and their implications for the work of the Bank.</p>
	<p><u>B. Tunisia and R. of Korea on ICT Policy Dialogue: (October 2009)</u></p> <p>Year 2009 Action Plans for ICT Cooperation Projects between (AfDB) and (KCC) included ICT policy consultation on: Telecommunications Policy, Radio Policy, Standardization Policy, Legal Framework and Information Protection Policy. Four officials from the</p>	<p>This was organized and facilitated by the Bank's ICT Group. Experiences were exchanged on telecom service market competition, infrastructure, convergence policies, market liberalization and regulatory systems. Areas of collaboration were</p>

	<p>Tunisian Ministry of ICT visited the KCC in Seoul to share experiences and conduct dialogue on Tunisia's Telecommunications policy.</p>	<p>identified and an implementation action plan is being discussed.</p>
<p>3.</p>	<p>CAPACITY BUILDING</p>	
	<p>A. <u>Tunisia:</u> An ICT Center of Excellence in Tunis (CAETIC) will be positioned as a training center for senior managers and decision-makers in the ICT sector. It will also be a research center for the African administrators and suppliers for specialized ICT services.</p>	<p>The terms of reference for the feasibility study were prepared and the Bank mobilized an amount of US\$472.000 from the French Trust Fund. The study is underway.</p>
	<p>B. <u>Rwanda:</u> The Rwanda Regional Center is to build appropriate capacity for high level training (Masters and PhD) and enhance research and innovation in order to boost the development of the ICT sector for competitiveness and economic growth. The technical partner identified by the Government of Rwanda (GoR) is the Carnegie Mellon University of the USA.</p>	<p>Discussions are on-going between the Government of Rwanda, Carnegie Mellon University and the Bank on the modalities of implementing the project while project preparation is underway.</p>
	<p>C. <u>Mali:</u> The High Tech Center of Mali is to train University students to establish an ICT work force urgently needed by the small and medium enterprises, the ICT industry and the public sector. The center will also offer long distance training and business incubation programs</p>	<p>The government of Mali, with the assistance of the Bank, completed the drafting the terms for reference for the feasibility study and obtained a grant of 150,000 Euros from the French Government for the feasibility study. The study is underway.</p>
	<p>D. <u>KADO/NIA (R. of Korea):</u> The Bank and the Government of the Republic of Korea signed an MoU in October 2008 which includes aspects of capacity building and provides for more training courses in ICT during the period 2009-2010.</p>	<p>A series of training programs and study tours in the R. of Korea were undertaken between October 2008 and June 2009 for participants from RMCs and Bank staff. So far, fifty one participants attended such training courses organized by KADO and NIA of R. of Korea.</p>
	<p>E. <u>ICT Awareness among Bank staff:</u> Series of workshops are planned to raise awareness among Bank staff and RMCs officials on the value of ICTs in development and the need to integrate it in country strategy papers and Bank's programs. They are aimed to provide understanding of the opportunities presented by ICTs to achieve national development goals.</p>	<p>A one day workshop was held in Bank HQs in October 2009 and was the first in a series of workshops targeted for the Bank's sector professionals. A half day workshop was also held for the Bank's Sector Managers.</p>