

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: PIDA5967

Project Name	Central Africa Backbone SOP5 (P132821)
Region	AFRICA
Country	Africa
Sector(s)	General information and communications sector (20%), Information technology (30%), Telecommunications (50%)
Theme(s)	Infrastructure services for private sector development (40%), Regulation and competition policy (40%), State-owned enterprise restructuring and privatization (20%)
Lending Instrument	Investment Project Financing
Project ID	P132821
Borrower(s)	Democratic Republic of Congo
Implementing Agency	COPIREP
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Decision	

I. Project Context

Country Context

Due to its vast geography, large population and abundance of natural resources, the Democratic Republic of Congo (DRC) has the potential to become one of Africa's economic powerhouses. The DRC is the largest country in Sub-Saharan Africa (SSA) with a land surface area of 2.3 million square kilometers and a population close to 75 million. Surrounded by nine countries, it is mostly landlocked with only about 37 km of coastline along the Atlantic Ocean. Natural resources can be found throughout the country and include petroleum, natural gas, coal, cobalt, diamonds, gold, and copper. Located in the Great Lakes region, DRC also holds the potential of becoming a significant producer of hydroelectric power – today, about 90 percent of domestic consumption of power is hydroelectric.

Decades of wars and mismanagement have deeply impoverished its population and destroyed its infrastructure. The country continues to recover from a series of conflicts that took place during the 1990s and early 2000s and that led to the death of more than 3.5 million people and displacement of more than 2 million. Economic growth has resumed in recent years, but per capita income

continues to decline and is much lower than in the late 1980s. With a per capita Gross National Income (GNI) of US\$220 (2012), DRC is among the poorest countries in the world. More than 71 percent of the population lives under the US\$1.25 a day poverty line (2006).

Human development indicators are strikingly low for the DRC. In 2012, the United Nation's Human Development Index ranked DRC last among 187 countries. Gender inequality is high, with gender-based violence a bleak day-to-day reality for a large number of women. Life expectancy at birth is 48 years (2009), under-5 child mortality is at almost 170 per 1,000 live births (2010), and maternal mortality is estimated at about 670 per 100,000 live births compared to the regional average of 500 (2010). Despite some progress in recent years, education outcomes remain low, with gross enrollment ratios estimated at 91 percent for primary, 36.5 percent for secondary, and about 6 percent for tertiary education. The population remains vulnerable to food price shocks due to the continued low performance of the agricultural sector, poor infrastructure and logistics, and their subsequent impact on trade and commerce. Currently, with 47 percent of the country's population under the age of 15 youth unemployment remains to be a major problem. The unemployment rate among the youth is nearly 90 percent half of whom are 30 years of age or under. Moreover, only 1 in 20 working-age adults under 25 years of age has a job.

The economic situation in the past few years has been improving and the country has remained largely unaffected by the global financial crisis. Economic growth recovered from 2.8 percent in 2009 to 7.2 percent in 2010, which was sustained at 6.9 percent in 2011. It is projected to remain over 7 percent which can be attributed to the recovery of the agricultural and trade sectors, and growth in the capital-intensive mining sector. Export receipts (goods and services) jumped by 80 percent in 2010, as a result of favorable prices for exported minerals, and increased further, by 18 percent, in 2011, before stabilizing in 2012.

Information and communications technologies (ICT) could potentially play an important role for the road to recovery and in the pursuit of sustainable development in the DRC. ICT provides leap-frogging opportunities, by enabling new ways of communicating, sharing and storing information, delivering services and conducting business. Increased access to information would benefit various segments of society, for example, it would empower entrepreneurs and traders to expand their business within the DRC and to facilitate trade regionally and globally. The total economic impact of the ICT sector represents more than 3 percent on the Central African Region and the effect of a 10 percent increase in mobile penetration on GDP per capita growth is 4.6 percent. While it is increasingly acknowledged that ICT is an enabling input to various sectors, the ICT sector itself can be a source of job creation industry contribution to employment in Central African region is estimated to reach 600,000 Full Time Equivalents (FTEs).

The project fits within the Great Lakes Initiative "Reviving the Great Lakes: A World Bank Group Regional Initiative for Peace, Stability and Economic Development". It would not only establish communications links connecting the east of the DRC to Kinshasa, but also increase DRC's connectivity to the other Great lakes countries and globally, allowing for opportunities for regional trade and cooperation, and strengthening the linkages between peace, security and long term development in the Great Lakes region.

Sectoral and institutional Context

DRC lacks any comprehensive national fiber optic backbone infrastructure that is needed for the

provision of broadband services. The telecommunications sector in the DRC is severely fragmented with disparate wireless, copper and fiber optic cable networks operating in different parts of the vast country. Existing networks are concentrated in the three largest economic clusters of Kinshasa, Goma and Lubumbashi. No operator has the financial resources nor the commercial incentives to extend its networks on a national scale, including the state-owned fixed-line telecommunications company, Société Congolaise des Postes et Télécommunication (SCPT) . This means that a call originating from Goma headed for Lubumbashi either goes through a satellite service, or is routed internationally subsequently resulting in higher prices for the consumer. Furthermore, the quality of the call is jeopardized particularly when routed through multiple countries.

Despite this reality, several investments into optical fiber networks in the DRC have been made implying a latent demand for telecommunications services. Liquid Telecom, a private company that has extensive fiber network across Southern Africa extended its 17,000km network across Uganda, Kenya, Rwanda, Zambia, Zimbabwe, Botswana, Lesotho and South Africa to Lubumbashi in 2012 which provides the country with international connectivity through Zambia. The SCPT, with the China International Telecommunication Construction Corporation (CITCC), has started to build-out the government's national fiber backbone, with the first 1,500km phase of the project completed and linking Kinshasa to Muanda. Phase two of this project started in April 2013 will build-out 3,500km of new fiber from Kinshasa to Katanga, through the provinces of Bandundu and Kasai. The World Bank Southern African Power Market Project (SAPMP) is supporting the deployment and commercialization of fiber optic bandwidth capacity that is has been laid on the Société Nationale d'Electricité (SNEL) energy grid . SAPMP is supporting the tender process that will award a concession contract to a telecommunications service provider. Despite these investments however, and due to the large size of the country and lack of coordination by the government and private operators, these networks remain unconnected.

DRC's fixed-line telecommunications network is extremely limited. In 2012, the number of lines in service stood at 58,000, and household penetration was 0.4 percent, compared to the regional average of 6.7 percent . Some operators started using wireless local loops (WiLL) which has led to a minimal number of new fixed-line services mainly in the capital city, Kinshasa, and in Lubumbashi, the second largest city in the country. Because of erratic power supply and the outdated status of the network owned and operated by SCPT, only 50 percent of its fixed lines are estimated to be in working order .

Wireless communications is currently the most accessible and reliable form of telecommunication services in the DRC. At the end of December 2001 there were just 150,000 mobile phone subscribers across the country, which increased to 22.7 million by the end of March 2013. Still in a country of 75 million, this translates to a penetration rate of only 30% which is significantly lower than other countries in the region (Angola, 50%; Congo, 101%; Zambia, 76%) as well as other low-income countries (Afghanistan, 54%; Cambodia, 132%; Haiti, 60%). The mobile segment of the market has six operators – Vodacom, Airtel DRC, Tigo DRC, Orange DRC, Africell and SuperCell, with Airtel and Vodacom currently holding 37.5% and 34% market shares respectively .

Provision of Internet services in the country is also dismal. SCPT is unable to offer fixed-internet access, and as a result private Internet Service Providers (ISP) have by offering predominantly wireless-based Internet services. Prices are prohibitive for most people, limiting Internet access to large businesses, government institutions and the expatriate community. Only 1.7% of DRC's population are thought to use the Internet and 1.3% of households have access to the Internet and

personal computer .

DRC is one of the few African countries that remain highly dependent on costly satellite connectivity to access international bandwidth capacity. In 2011, the DRC became connected to international networks through fiber through the West Africa Cable System (WACS). However, the operation of the WACS landing station went live only 14 June 2013. Further difficulties transpired when the quality of civil works for the connection between WACS and terrestrial backbone infrastructure did not meet international standards and is currently unusable. The current price of bandwidth is still prohibitive at about US\$4,000-5,000 per Mbps per month. By comparison, the price of similar services in East Africa is approximately US\$500 which is continuing to decrease as a result of intense competition between submarine cables.

Furthermore, the legal, policy, and regulatory environment is weak and is inadequate for the oversight of a fast-evolving sector. Key issues include the following:

- a. Restructuring of the state-owned fixed-line operator. SCPT, with less than 2,000 properly functioning telephone lines, is not a financially viable company. The COPIREP (Comité de Pilotage de la Réforme des Entreprises du portefeuille de l'Etat – Steering Committee in charge of the Reform of Public Companies) recognizing this has prepared a government proposal for the restructuring of the SCPT. The proposal includes the following options: (i) SCPT is spun-off into two separate legal entities, one for postal services and the other for telecommunications services; (ii) sharing of assets and liabilities between both postal and telecommunications services. It is important that a social plan is laid down for the retrenchment of public sector staff in either scenario. This has been discussed in studies supervised by COPIREP and funded under World Bank project .
- b. Weak legislation, regulation and sector policy. The current 2002 Telecommunications Law has not been adapted to the existing market realities and does not take into consideration new converging technologies that have emerged in the past several years such as mobile broadband (e.g. 3G/4G/LTE). Therefore a new legal and regulatory framework has been drafted. The government intends to submit it before the end of the June 2014 Parliamentary session. The draft Law addresses the main gaps and weaknesses of the 2002 Law. It improves and develops information technology law, “cyber”, legal and institutional frameworks, and deals with subject areas such as cyber security, cybercrimes, privacy, promotion of the ICT sector innovation and support to the national entities in charge of ICT.
- c. Weak regulatory oversight of the telecommunications sector. While the establishment of Autorité de Régulation de la Poste et des Télécommunications du Congo (ARPTC) in 2002 (Law n° 014/2002) was a commendable achievement, the overall accomplishments of the regulator have not met expectations, one reason for which is insufficient funding and lack of authority to implement decisions.
- d. Excessive taxation of operators. With tax revenues from the telecommunications sector accounting for one-third of the Government’s revenues, the sector is seen as a “cash cow”. These burdensome and discriminatory taxes deter the adoption and use of both fixed and mobile broadband and other advanced ICT sector applications that are considered major drivers for development and growth in the context of information-based economy. A recent GSMA report shows that (i) mobile-specific charges, which are applied in addition to sales taxes, tax as a proportion of a user’s total cost of mobile ownership (TCMO) in numerous SSA countries and in DRC in particular are among the highest worldwide in 2011 . Mobile taxation as a proportion of TCMO was more than 29 percent in DRC as compared to a regional average of 19 percent in Sub

Saharan countries and a global average of 18 percent.

The World Bank has provided extensive support to the telecommunications sector of the DRC since 2004. Support has been provided through a series of technical assistance activities including: (i) assisting in the creation and operation of the regulator, ARPTC (Private Sector Development Competitiveness Project 2004-2008), (ii) policy dialogue to support the adoption of the Letter of Sector Policy in FY09, FY10 and FY11; (iii) supporting the MPT&NTIC to develop an Information and Communication Technologies (ICT) Strategy, ICT Policy and Broadband Strategy; and (iv) supporting the revision of the legal and regulatory framework identified as key actions in the ICT Strategy and Policy documents.

II. Proposed Development Objectives

The development objective of the proposed project is consistent with the PDO for the CAB Program: to contribute to increase geographical reach and usage of regional broadband infrastructure and to reduce the price of services to enable more people in the DRC to access information and communication technology (ICT) services.

III. Project Description

Component Name

Component A –Facilitating the emergence of an inclusive digital economy (US\$13.20m)

Comments (optional)

The component will support ICT skills, create new business opportunities for local ICT firms, promote ICT sector and digitalization of the economy through the following TAs (i) capacity building of the Ministry, in particular in the management of the .cd domain name; (ii) e-Waste (the process of recycling electronic equipment) – Preparatory Study, capacity building activities and investment plan (including the construction of the e-waste center); (iii) Government Intranet - Definition and preparatory study, installation of the network and purchase of equipment; and (iv) support to the SCPT operations on the Kinshasa Muanda link and fund the SCPT participation in the PPP concession contract for the operation of the infrastructure owned by the SPN.

Component Name

Component B –Construction, management, commercialization of the CAB5 Infrastructure through PPP scheme (US\$71.60m)

Comments (optional)

The project proposes a mix of interventions covering investment focused on improving connectivity through (a) establishment of three neutral carrier hotels and regional IXPs, and (b) establishment of three interregional links to neighboring countries (including civil works, fiber-optic cables, terminal equipment), The component will also finance the SPN operating cost for the first two years including the monitoring and the quality control of the construction.

Component Name

Component C – Improving regulatory effectiveness and enabling environment at the regional and national levels (\$7.30 million)

Comments (optional)

This component will reinforce ARPTC and strengthen the regulatory tools and capacity to promote further sector reform so as to maximize benefits from access to capacity, strengthen the PPP framework to provide a sound basis for both the connectivity component. This subcomponent will support the functioning of the regulatory body (ARPTC) to ensure that the GoDRC's objectives are being met both at the national and at the regional level. This subcomponent will include, inter alia,

the following activities: i) TA to promote and strengthen Cross-Border Frequency management regime, (ii) TA to promote and strengthen Network Integrity and Cybersecurity (iii) TA to promote an Open Access); and (iv) purchase of information systems and computers (i.e. LAN, WAN, applications).

IV. Financing (*in USD Million*)

Total Project Cost:	92.10	Total Bank Financing:	92.10
Financing Gap:	0.00		
For Loans/Credits/Others			Amount
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			92.10
Foreign Private Commercial Sources (identified)			0.00
Total			92.10

V. Implementation

The project will be implemented through Public Private Partnerships (PPP). There are three main reasons why the project would rely on PPPs to build and operate the fiber optic network in the DRC. First, neither the government of DRC nor private operators have the financial capacity on their own to support the high upfront investment required to build a nationwide network. The context is similar to that of Europe and the U.S. where the large geographic size presents significant challenges and disincentives for telecommunications operators to invest and expand outside an economic cluster. Furthermore, both the government and private operators by themselves would not have the technical expertise to maintain and operate such a large network. Second, the SPV can be designed to aggregate market players which would reduce transaction costs for both the government and the private operators. Operating through the SPV would also increase coordination capabilities for maintaining the network and determining wholesale prices in a transparent manner. Third, a number of private operators in the DRC are already discussing establishing a consortium in order to leverage coordination and investment opportunities for network expansion. This consortium could potentially be a candidate to partner with Government in the PPP financed under this project.

VI. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	x	
Natural Habitats OP/BP 4.04	x	
Forests OP/BP 4.36		x
Pest Management OP 4.09		x
Physical Cultural Resources OP/BP 4.11	x	
Indigenous Peoples OP/BP 4.10	x	
Involuntary Resettlement OP/BP 4.12	x	
Safety of Dams OP/BP 4.37		x
Projects on International Waterways OP/BP 7.50		x
Projects in Disputed Areas OP/BP 7.60		x

Comments (optional)

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