BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameroon</td>
<td>P161219</td>
<td></td>
<td>Cameroon - ICT Sector Reform Project (P161219)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Practice Area (Lead)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Lending Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Project Financing</td>
<td>Ministry of Finance</td>
<td>Ministry of Posts and Telecommunications</td>
</tr>
</tbody>
</table>

Proposed Development Objective(s)

The Development Objective is to further ICT sector's reforms in order to increase the reach and usage of ICT services in the Republic of Cameroon.

Financing (in USD Million)

<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Development Association (IDA)</td>
<td>40.00</td>
</tr>
<tr>
<td><strong>Total Project Cost</strong></td>
<td>40.00</td>
</tr>
</tbody>
</table>

Environmental Assessment Category

C-Not Required

Concept Review Decision

Track II-The review did authorize the preparation to continue

B. Introduction and Context

Country Context

Despite a fast growth of the mobile market, which drove fiscal contributions, the ICT sector of Cameroon is well below its full potential in terms of contribution to employment and economic growth. In 2012, the fiscal contribution of the two main private mobile operators (US$ 100 million) was already higher than that of the oil and
electricity sectors combined (US$ 28 million for the electricity sector and US$ 35 million for the oil sector). The growth of the mobile sector continued, to reach US$ 850 million in 2014, representing 2.7% of the GDP. However, in terms of employment, ICT only created 3,200 direct jobs and 20,000 indirect jobs as of 2014, and the high prices of telecom and Internet services remains a constraint to growth and employment in the rest of the economy.

The overall ICT performance of Cameroon is considered relatively weak by international institutions, as a result of policies that were not conducive to promoting competition and to strong private sector participation in general. For instance, the Network Readiness Index 2015\(^1\), which encompasses various dimensions of ICT development, ranks Cameroon as 126\(^{th}\) out of 143 countries. The breakdown of this index (below) shows the poor performance in terms of policy environment, infrastructure deployment, affordability and usage:

- political and regulatory environment – 112\(^{th}\), business and innovation environment – 107\(^{th}\)
- infrastructure – 141\(^{st}\), affordability – 132\(^{nd}\), skills – 111\(^{th}\)
- individual usage – 130\(^{th}\), business usage – 80\(^{th}\), government usage – 103\(^{rd}\)
- Economic impact – 87\(^{th}\), social impact – 118\(^{th}\)

From a market’s perspective, the growth of the sector appears stalled primarily by the relatively high retail prices of telephony and Internet services compared to other sub-Saharan countries. The Internet sector is still in its infancy and lags behind the rest of the region, penalized by very high retail market prices compared to the regional average, resulting in very low penetration rates. In fact, Cameroon’s cost of internet access is the second highest in all of Africa and 10 times higher than the average cost for coastal countries in Sub-Saharan Africa. While mobile Internet technologies are allowing many African countries to experience an explosive growth of Internet penetration, the ownership of smartphones remains the exception in Cameroon, and 3G/4G networks are deployed in very limited areas. With regards to mobile telephony, available statistics suggest that this market is relatively mature, with penetration rates only slightly below the regional average. However, a significant potential remains since retail prices for mobile telephony in Cameroon are among the most expensive about comparable African countries (see Annex 1).

These market failures suggest that the ICT sector remains hindered by policy and regulatory bottlenecks. Although a new legal and regulatory regime was adopted in 2010 and a third mobile license was granted in 2012, the process of liberalizing the fixed line and broadband Internet sectors has been slow, due to the inability to break the monopoly of the incumbent integrated telecommunications operator CAMTEL in several key segments of the market, including international access and national backbone. As a result, competition dynamics still don’t play their role in reducing prices for users, improving the quality of services, fostering innovation, and boosting cross synergies with other sectors of the economy.

Provided that these bottlenecks are lifted, the growth potential of the telecom market could be substantial relative to regional peers. In a conducive environment, the telecom market could grow at a CAGR\(^2\) of 6.5% between 2016 and 2019\(^3\) - the highest expected in the West African sub-region. This growth would be driven by mobile voice and data, with the launch of 3G and 4G services by the mobile operators MTN Cameroon and Orange Cameroon. Also, the increased broadband capacity offered by the existing and planned submarine cable systems has the potential to reduce broadband access costs and increase accessibility. Finally, Cameroon’s economic outlook is positive, with an

\(^1\) Since 2001, the Global Information Technology Report series published by the World Economic Forum in partnership with Cornell University and INSEAD has measured the drivers of the ICT revolution using the Networked Readiness Index.

\(^2\) Compound Annual Growth Rate

\(^3\) Source: IFC
average GDP growth projected at 4.6% between 2017 and 2020\(^4\), which is more encouraging than other West African countries. This potential economic growth would translate into higher disposable income (projected to increase by 33% between 2016 and 2020) which, coupled with the prevalence of more affordable smartphones, would improve broadband penetration.

Sectoral and Institutional Context

The Government shows considerable interest and commitment to stimulating the development of the digital economy in Cameroon, as demonstrated by the following key policies:

- The national policy “*Document Stratégique pour la croissance et l’emploi 2010-2020*” has set specific and ambitious targets for the ICT sector to be reached by 2020: fixed telephony density of 45% and mobile telephony density of 65% of the population; access of 40,000 villages to modern communication tools; increase of international capacity (i.e. bandwidth) to 3.8 Gbit/s; and ultimately, a very ambitious 50-fold increase in direct and indirect digital jobs. This policy confirms that the government understands the short and long term economic and social opportunities that come with a well-functioning ICT sector, yet with some unrealistic expectations. Aligned with this policy, the development objective of the proposed project is targeting an increase in the reach and usage of ICT services in the country.

- The ICT sector vision and strategy, presented in the “*Plan Stratégique Cameroun Numérique 2020* (MINPOSTEL – January 2016)", set very ambitious targets for 2020 as well, such as doubling the contribution of the digital economy to the GDP and more than doubling the fiscal contribution of the sector. The plan also recognizes the urgent needs for significant reforms to foster the ICT sector, as a critical foundation to broader economic and social development. The plan identifies priority changes (in terms of market structure, regulation and capacity of institutions) to lead and implement this vision, including the liberalization of at least certain key markets and the stimulation of competition. The proposed project is closely aligned with several strategic objectives of this plan, namely 1) mainstreaming Internet broadband access to citizens, businesses and households; 2) providing attractive content produced and hosted locally; 3) digitalizing the administration and the enterprises across sectors for a better efficiency, transparency, competitively and productivity; 4) possessing digital goods and services locally produced and locally available, and 5) ensuring the availability (in quantity and quality) of human skills to supply the needs of the digital economy.

- The creation of a working group, coordinated by the Secretary General of the Prime Minister, to propose measures to optimize the mobile network of CAMTEL. This working group prepared a report (dated September 2015) offering "diligent and efficient implementation measures of the mobile network of CAMTEL, optimizing the strategic positioning of the incumbent in the light of the changing telecommunications landscape". This document – whose scope goes beyond the assessment of Camtel’s mobile network- offers an important basis to reorganize and reposition the incumbent operator CAMTEL.

The Government is also willing to build on the successful partnership established through the Central African Backbone (CAB) Program financed by the Bank, which has laid the foundations for a holistic approach to reform the ICT sector and has confirmed the mutual understanding of the key bottlenecks to sector growth. These bottlenecks include primarily:

- The weak regulation of the sector, and especially the ineffective regulation of broadband backbones and of the access to international landing stations, translating into a lack of efficient competition. These constraints are exacerbated by the inability of the regulator to implement appropriate remedies on a number of important matters (radio spectrum, licensing of service, universal service, etc.)

\(^4\) Source: IFC
• The many challenges facing the incumbent operator Camtel. Camtel faces financial and operational difficulties, which carry the risk of endangering the long-term viability of the entire sector. Camtel’s business model is obsolete, and increasingly vulnerable to competitive pressures. As a result, the incentives to long-term investment in the sector are negatively impacted.

Relationship to CPF

The proposed project fully embodies the binding constraints identified in the Systematic Country Diagnostic (SCD) published in June 2016 and proposes to tackle the identified priority reforms in the ICT sector. The SCD highlights that the ICT sector growth remains hampered by policy and regulatory bottlenecks, with a monopoly of the incumbent operator in key market segments (national and international bandwidth capacity), resulting in high service prices and low quality of services. The SCD suggests priority reforms to make the sector more open and competitive, to strengthen the business environment and attract private investments, which are fully embedded in the design of the proposed project.

In addition to supporting telecoms reforms, which directly strengthens the business environment in Cameroon, the proposed project would also contribute to priority actions listed in the SCD, to address constraints to a non-conducive business environment:

• **Agriculture.** The SCD notes that opportunities for production increases are limited, due to the absence of access to the market (to buy inputs or sell surplus), and that a high level of information asymmetry leaves the space for freight-forwarders to extract rents. The SCD suggests also that aggregation at the village level (through collaboration between farmers and the small informal trucking firms), improved access to (price) information and improved traceability would all support a proper market integration. ICT services provide many solutions to these issues, mainly by enhancing the access to information through dedicated platforms and services. The introduction of simple ICT-based applications and platforms in the transport system, including small trucks, has the potential to introduce trickle-down productivity increases in the overall distribution system, improving the access to market for small farmers, and enhancing the opportunity to aggregate products at village level. The introduction of ICT to address price information asymmetry has a well-established development impact in the agriculture and fisheries sectors, reducing the opportunity of rents, and improving the performance of the relevant markets.

• **Finance.** The SCD highlights the reform of the financial sector as a key priority, to “enhance the availability of financial products relevant for rural development such as crop insurance, asset leasing and medium term agricultural financing”. ICT has a key role to play in enhancing access to suitable products in rural areas, where the traditional banking system is inexistent, such as money transfers, e-banking, and mobile savings. Successful examples of mobile banking in other African markets could be used as a reference for Cameroon: for instance, mobile banking as in Kenya and Uganda has reached rural areas, stimulated savings, and offered effective solutions to farmers, increasing their ability to acquire and lease assets.

The proposed project is consistent with the objective of improving the regulatory and institutional framework for key sectors, identified in the preliminary version of the Country Partnership Framework (CPF). The proposed project aims at promoting a resilient ICT infrastructure (by diversifying supply networks and providers), promoting inclusive industrialization (by extending the reach of ICT services to low-income and/or remote populations) and fostering innovation (by attracting private investments and unleashing competition). These actions will ultimately contribute to improving citizens’ welfare in the poorest regions.
C. Proposed Development Objective(s)

The Development Objective is to further ICT sector’s reforms in order to increase the reach and usage of ICT services in the Republic of Cameroon.

The “ICT services” considered in the context of this project refer to telephony, data (e.g. Internet) and other services (mobile banking, cloud computing, etc.) provided by telecommunications operators and Internet Services providers, as well as any other market players of the ICT sectors (website developers, digital content providers, IT systems developers, etc.), regardless of the technology used (e.g. fixed, mobile). The “reach” of ICT services in the context of this project is defined as the penetration of ICT services in the residential and business markets, in terms of physical accessibility (e.g. network coverage in remote and/or sparsely populated areas), affordability for low-income populations (e.g. availability of market-entry tariffs, discounts and subsidies), and usability for impeded social groups (e.g. blind people, illiterate people, etc.).

Key Results (From PCN)

The proposed results indicators for the project include:
- ICT services penetration rates (as a percentage of population), including the percentage of women;
- Wholesale and retail prices of ICT services;
- Coverage of ICT services networks, in urban and rural areas;
- International capacity available and used at the national level;
- ICT services and platforms deployed

D. Concept Description

This project intends to address key legal, regulatory and technical bottlenecks faced by the authorities and identified at this stage (Cf. section Sectoral and Institutional Context), by 1) strengthening the sector governance and the relevant institutions, and implementing key policy and regulatory reforms, 2) engaging a strategic repositioning of the incumbent operator CAMTEL and potentially bringing operators and private capital into the market, in partnership with CAMTEL or as standalone entities, to further promote competition, and 3) increasing ICT usage through the implementation of ICT-based services tackling key development issues. This proposed operation will be developed in coordination and synergy with IFC, with the shared objective to increase private sector participation and competition in the ICT sector.

Component 1: strengthening the sector governance and implementing key policy and regulatory reforms.

The objective of this component is to tackle the identified bottlenecks of relatively high retail prices and poor quality of ICT services. The approach to sectoral reform in the proposed project will take proper account of the recommendations of the World Development Report 2016 on Digital Dividends. The following activities are considered for this component:
- The technical support to the development of sectoral policies and specific regulations for the sector: this could include the development of asymmetrical regulation to facilitate the entry of new operators; establishing a framework for rights of way (to ensure deployment of fiber to uniform technical requirements and reasonable costs); and the study and development of an appropriate regulatory framework for Over the Top (OTT) operators;
- The support for the regulation of the wholesale market for national and international segments;
• The development of a collaborative framework between the various government agencies to facilitate access to infrastructure networks (electricity grid, pipelines) to lower the costs of fiber deployment;
• The reorganization of the institutional framework for sector regulation;
• The revision of the licensing framework, in order to promote the migration of existing licenses to a more simple framework, placing all operators on a level playing field; the preparation of the license CAMTEL;
• The support for a reform of spectrum management: optimization in the use of frequencies, the reallocation of frequencies used by analogue television (digital dividend);
• The assistance to the ART for the regulation of retail prices and service quality, including technical assistance and purchase of equipment for the control of telecom operators;
• The strengthening of the Universal Service Fund. Key actions will include: a) preparation of tenders for the deployment of broadband in rural areas; b) the use of funds to promote and finance shared access to active and passive radio infrastructure (e.g. towers, antennas, fiber connectivity) in the country’s remote areas.
• The strengthening of network security policy and dedicated entities such as the Computer Emergency Response Team (CERT) creating sector-specific CERT and, training human resources in the field of computer security;
• The strengthening of ART, MINEPOSTEL and ANTIC teams through trainings and capacity-building programs;
• The strengthening of key information systems;
• The improvement of digital trust policies and the development of technical skills through certification of electronic transactions.

Component 2: engaging a strategic repositioning of the incumbent operator CAMTEL and promoting competition.
The objective of this component is to assist CAMTEL in the implementation of the regulatory interventions carried out in the Component 1, and more generally to support CAMTEL in adapting to the new policy and market environment. This component is required to ensure that CAMTEL is able to respond to the challenges of a more competitive market. This strategic shift of CAMTEL, if successful, would translate into a more performing sector overall (better quality of service, lower service costs and a larger take-up of ICT services) and higher fiscal revenues for the government. The ability of CAMTEL to enhance its commercial performance will increase the long-term sustainability of sector reform, and mitigate substantial project risks.

Various restructuring options and sub-options can be envisioned for CAMTEL, depending on the government’s strategic vision for the company and on the regulatory decisions to be imposed by the regulator on the national and international business activities of CAMTEL. The government has yet to take a final decision on the options to restructure CAMTEL. However, based on the documents of the government’s working group, two options seem to emerge. The first option is illustrated in the graph below. Camtel would be repositioned as to keep its current backbone and international assets, but create two Special Purpose Vehicle (SPV), for wholesale and for retail activities. Two Public-Private Partnerships (PPPs) with strategic investors would be created, to invest and take majority control of the two SPVs.
The following graph represents a different option, based on a significant transfer of assets to a SPV, which would conserve all previous services of CAMTEL, and introduce Fixed fiber networks (FTTx) and Mobile services through one single SPV. The final repositioning option is still being studied by the government.

The following activities are considered for this component:

- The definition of the preferred option for the strategic repositioning of CAMTEL: this activity would precisely define the optimal option for CAMTEL’s restructuring, build a wide consensus around this option and establish a gradual and realistic action plan;

- The implementation of the restructuring plan (e.g. establishing the subsidiaries under a holding company, introducing industrial cost accounting, spin-off of certain assets, developing new broadband (fixed and mobile) projects on a PPP basis, with possible IDA and IFC support, and with the support of international operators on a Joint-Venture basis;
- The selection of a strategic partner through an international competitive bidding process or a similarly transparent mechanism (e.g. preparation of an Information Memorandum for the selection of a strategic investor, provision of funding for the transaction, etc.);
- Selected short-term technical assistances to the benefits of CAMTEL, including marketing and management assistances.

This component could benefit from a strong collaboration between the Bank and the IFC. Consistent and complementary support from both the Bank and the IFC would bring valuable expertise to restructure CAMTEL in a way that would beneficial for the company and the sector as a whole. The Bank and the IFC have today a consistent vision of CAMTEL’s repositioning and of sector reforms needed. The division of roles between the Bank and the IFC will be refined during the appraisal, with the Bank focusing a priori on sector’s reform and PPP-related activities and the IFC focusing on the transaction part, and both IFC and the Bank establishing a strong collaboration for the initial restructuring design.

This component could also contribute to the infrastructure project financed by the African Development Bank, would the need be acknowledged at the appraisal stage. The African Development Bank is currently financing the expansion of the national optical fiber backbone on five major sections (missing links and interconnection with neighboring countries) for about 900 km of fiber (Central African Backbone Project). CAMTEL would be granted an exclusive concession on these links, but would have the obligation to provide the capacities required by other operators on these links, under the control of the ART. This component could contribute in the proper leveraging of this future infrastructure, in the context of the regulatory changes implemented through component 1.

Component 3: developing ICT usage through ICT-based services, tackling key development issues
The objective of this component is to stimulate the usage of ICT services, while maximising their spillover effect in other (economic and social) sectors, with a particular focus on the finance and agriculture sectors. The proposed project will focus on selected high-priority, high impact and sustainable initiatives that a) will foster the usage of ICT, b) are aligned with the broader development agenda of the Bank in Cameroon, c) are achievable within the allocated timeframe and budget and d) for which the Bank has a tangible and successful experience.

The main activities considered for this component are focusing on the finance and agriculture sectors. The choice of targeting ICT applications in the agriculture and finance sector is grounded on the following considerations: a) the opportunity to reap quick benefits from the introduction of ICT (the introduction of mobile money solutions and ICT applications to tackle information asymmetry have an immediate impact on the livelihood of beneficiary populations); b) in both sectors, the introduction of ICT is associated with a track record of successful results in African countries (e.g. mobile money in Kenya and Uganda), which can be replicated and adapted to the specific development challenges of Cameroon.

- Finance. Increasing the access to basic financial products remains critically relevant, especially in rural areas of Cameroon, to stimulate the economic activity and to increase the resilience to shocks. Mobile banking provides a well-established and complete solution for most of these issues, and remain underdeveloped in Cameroon. The first component of the proposed project will improve the accessibility of these services, by reducing basic service prices and increasing the geographic network coverage (e.g. universal service). Additional initiatives will be needed to remove barriers and stimulate the take-up of mobile banking, such as the establishment of a proper policy framework. These activities will be designed and realized in collaboration with the Finance and Markets Global Practice.
- Agriculture. ICT can help disseminate information between buyers and producers, thus reducing transport and logistics transaction costs for farmers, especially for the most vulnerable (impoverished farmers, women), and
lowering the cost of supply for consumers. Several activities are proposed to tackle this issue: i) the creation of an online agriculture platform, that would facilitate exchanges between buyers and sellers and provide information on market demand, supply, supply chain players, prices of commodities, market requirements, etc.; ii) the creation of a transport platform to encourage the collaboration between farmers and the interactions with small trucking companies. Building on the activities around mobile banking, dedicated activities are also planned to design and make available financial products directly relevant for rural development such as crop insurance, asset leasing and medium term agricultural financing, e-vouchers for fertilizers, etc.

The specific project activities of this component will be defined during the course of project preparation, following interactions with counterparts, and in collaboration with the colleagues of the relevant Global Practices, but selectivity at the next stage of project preparation will be essential, for the project implementation to be manageable.

Initial discussions suggest that synergies with other sectors could be highly relevant. The education sector, in particular, may see an interest in the development of education management tools and systems (e.g. monitoring of students’ and teachers’ attendance, skills professional development and assessment of teachers, data collection and statistics, etc.), in relation with the results-based financing (RBF) pilot currently developed in disadvantaged areas of the country, which would require schools to provide statistics such as class attendance. Such system could improve significantly the governance and management of schools in remote areas, and give precise information on key indicators (e.g. girls’ attendance). The national digital ID initiative represents another topic that could be further explored, in line with existing or planned projects. Lastly, and following overwhelming positive feedbacks from the stakeholders, dedicated activities should be considered to develop the innovation ecosystem in Cameroon. These activities could include:

- Support to certified and marketable skills;
- Support to the creation of start-ups;
- The widespread access to online job platforms;
- Support to the development of applications and content, such as, for example the development of a virtual library (scanning and archiving of cultural and tourist content, following the work of ITU and the conclusions of CAB4-APL1 studies).

---

5 The key component of the RBF approach would be the provision of “performance-based school’s grants” to the schools’ management committees (SMCs) to achieve a set of well-defined outputs. This approach involves stakeholders and communities at local level, and responds to the growing call from service beneficiaries to get information to define their priorities, and plan tailored activities to handle their specific issues. Local communities (and stakeholders) could provide feedback (textbooks distribution, teacher absenteeism, collected fees…) into the system through interview and mobile devices. Information collected and synthesized could inform/alert decision makers at district or regional level, or policy makers at national level. Results of the initiative could increase willingness of parents to contribute to school functioning, and to greater trust between school administration and communities.
SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The project is not expected to have any adverse social or environmental impacts. It will not entail any civil works or prepare civil works, or other physical interventions.

B. Borrower’s Institutional Capacity for Safeguard Policies

Not applicable

C. Environmental and Social Safeguards Specialists on the Team

Kristyna Bishop, Erik Reed

D. Policies that might apply

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Natural Habitats OP/BP 4.04</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Forests OP/BP 4.36</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Pest Management OP 4.09</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Physical Cultural Resources OP/BP 4.11</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Indigenous Peoples OP/BP 4.10</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Involuntary Resettlement OP/BP 4.12</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Safety of Dams OP/BP 4.37</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Projects on International Waterways OP/BP 7.50</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Projects in Disputed Areas OP/BP 7.60</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Apr 03, 2017

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

Not applicable
CONTACT POINT

World Bank

Charles Pierre Marie Hurpy
ICT Policy Specialist

Borrower/Client/Recipient

Ministry of Finance

Implementing Agencies

Ministry of Posts and Telecommunications
Dennis NGAE
Directeur des infrastructures et réseaux d'accès
denisngae@yahoo.fr

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

APPROVAL

Task Team Leader(s): Charles Pierre Marie Hurpy

Approved By

Safeguards Advisor: Maman-Sani Issa 11-Jan-2017
Practice Manager/Manager: Boutheina Guermazi 11-Jan-2017
Country Director: Doina Petrescu 16-Jan-2017