

# GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: MEDIUM-SIZED PROJECT TYPE OF TRUST FUND: GEF TRUST FUND

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#### **PART I: PROJECT INFORMATION**

Project Title: Promoting access to renewable energy and development of IT tools for rural communities of Cameroon				
Country(ies):	Cameroon	GEF Project ID: <sup>1</sup>	9116	
GEF Agency(ies):	AfDB (select) (select)	GEF Agency Project ID:		
Other Executing Partner(s):	MINIPOSTEL/MINEE	Submission Date:	04.29.2016	
GEF Focal Area (s):	Climate Change	Project Duration (Months)	24	
Integrated Approach Pilot	IAP-Cities IAP-Commodities IAP-	Food Security Corporate F	Program: SGP 🗌	
Name of Parent Program	[if applicable]	Agency Fee (\$)	164,016	

## A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES<sup>2</sup>

Focal Area			(in \$)	
Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Project Financing	Co- financing
(select) CCM-1 Program 1 (select)	Promote timely development, demonstration and financing of low carbon technologies and mitigation options	GEFTF	1,226,484	32,000,000
(select) CCM-1 Program 1 (select)	Develop and demonstrate innovative policy packages and market initiatives to foster new range of mitigation action	GEFTF	500,000	9,034,000
	Total project costs		1,726,484	41,034,000

### **B. PROJECT DESCRIPTION SUMMARY**

Project Objective: To encourage the use and upscaling of renewable energy technologies to mitigage GHGs, ensure a more sustainable power supply for ICT purposes, and promote the development of solar technologies.

					(in	<b>(\$)</b>
Project Components/	Financing	Project Outcomes	Project Outputs	Trust	GEF	Confirmed
Programs	Type <sup>3</sup>	1 Toject Outcomes	1 Toject Outputs	Fund	Project	Co-
					Financing	financing
1. Strengthening	TA	1.1 Favorable policy	1.1 Appropriate policy	GEFTF	140,000	3,534,000
policy and institutional		environment and	and financial measures			
mechanisms to support		institutional	identified to incentivize			
the development of the		framework established	development of green			
green ICT network.		to foster accelerated	ICT, renewable energy,			
		low GHG	and energy efficiency			
		development in green	technologies.			
		ICT technologies,				
		renewable energy and	1.2 Updated roadmap to			
		energy efficiency.	guide green ICT policy			
			development which			
			includes the			
			identification of			
			financing sources.			
2. Undertaking	TA	2.1 Accelerated	2.1 Assessments of	GEFTF	140,000	3,500,000
technical studies on		adoption of innovative	exploitation potential of			
the potential use of		technologies and	renewables for powering			

<sup>&</sup>lt;sup>1</sup> Project ID number remains the same as the assigned PIF number.

<sup>&</sup>lt;sup>2</sup> When completing Table A, refer to the excerpts on <u>GEF 6 Results Frameworks for GETF, LDCF and SCCF</u>.

<sup>&</sup>lt;sup>3</sup> Financing type can be either investment or technical assistance.

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renewable resources and energy efficient appliances in rural areas to power/operate community centers and other infrastructure		management practices for GHG emissions reduction by mainstreaming the uptake of renewable energy-powered ICT centers and other offgrid applications.	ICT centers and other off-grid applications.  2.2 Action plan formulated to identify opportunity for inclusion of renewable energy systems and energy efficiency appliances for use in ICT centers in rural communities.  2.3 Identification of needs and requirements for the establishment of local networks and solar equipment for community centers.			
3. Provision of renewable energy powered infrastructure	(Inv)	3.1 Low GHG technologies and practices for ICT and community centers deployed and demonstrated.	3.1 Installation of 13 solar energy systems to generate 40,000 kWh per day and basic ICT equipment, including computers and photocopiers for 52 community centers and other buildings at strategic locations for demonstration and capacity building.	GEFTF	1,109,531	30,400,000
			3.2 Regional/ national awareness campaigns carried out to sensitize population about green community centers, their purpose, and the advantages of using renewables and energy efficient appliances.			
4. Knowledge Management and Monitoring and Evaluation	TA	4.1 Project Management based on results and lessons learned are captured and appropriately disseminated.	<ul><li>4.1 Lessons and best practices documented and disseminated.</li><li>4.2 Monitoring and Evaluation documentation prepared.</li></ul>	GEFTF	180,000	2,500,000
			Subtotal	ar	1,569,531	39,934,000
		Project	Management Cost (PMC) <sup>4</sup>	GEFTF	156,953	1,100,000
			Total project costs		1,726,484	41,034,000

## C. CONFIRMED SOURCES OF **CO-FINANCING** FOR THE PROJECT BY NAME AND BY TYPE

<sup>&</sup>lt;sup>4</sup> For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Please include evidence for <u>co-financing</u> for the project with this form.

Sources of Co- financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
GEF Agency	African Development Bank	Loans	41,034,000
<b>Total Co-financing</b>			41,034,000

## D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

					(in \$)		
GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	GEF Project Financing	Agency Fee	Total (c)=a+b
AfDB	GEF TF	Cameroon	Climate Change	(Climate Change)	1,726,484	164,016	1,890,500
Total Grant Resources			1,726,484	164,016	1,890,500		

a ) Refer to the Fee Policy for GEF Partner Agencies

#### E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>5</sup>

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	<b>Project Targets</b>
Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	hectares
Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	hectares
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	Number of freshwater basins
investments contributing to sustainable use and maintenance of ecosystem services	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	Percent of fisheries, by volume
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO <sub>2e</sub> mitigated (include both direct and indirect)	15,538 metric tons (direct and indirect)
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	metric tons
concern	Reduction of 1000 tons of Mercury	metric tons
	Phase-out of 303.44 tons of ODP (HCFC)	ODP tons
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	Number of Countries:
policy, planning financial and legal frameworks	Functional environmental information systems are established to support decision-making in at least 10 countries	Number of Countries:

### F. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? NO

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF Trust Fund) in Annex D.

<sup>&</sup>lt;sup>5</sup> Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

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#### PART II: PROJECT JUSTIFICATION

#### A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF<sup>6</sup>

A.1. *Project Description*. Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area<sup>7</sup> strategies, with a brief description of expected outcomes and components of the project, 4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and cofinancing; 5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

A1.a - The global environmental and/or adaptation problems, root causes and barriers that need to be addressed.

N/A

### A1.b - The baseline scenario and any associated baseline projects

The overall objective of this project is to encourage the use and upscaling of renewable energy technologies to mitigage GHGs, ensure a more sustainable power supply for ICT purposes, and promote the development of solar technologies. The project aims to reduce the high cost of telecommunications/ICT on the business climate in the sub-region, create all forms of jobs and expand the production of goods and services, thus helping to reduce poverty. The environmental sustainability of this project is supported by the promotion of renewable solar energy to power IT centers and equipment.

In terms of infrastructure, the project will: (i) extend the national optical fibre backbone on five major sections (missing links and interconnection with neighbouring countries) for about 916 km of fibre; (ii) provide solar office automation and IT equipment for Multi-purpose Community Tele-Centres (TCPs); Education and Community Action Centres (CEAC) and Women's Promotion Centres (CPF) with the deployment of photovoltaic solar panels, thanks to additional funding from the Global Environment Facility (GEF); and (iii) support to institutions of higher learning to help foster the growth of the ICT sector in Cameroon (ENSPT, Universities of Yaoundé I, Bamenda and Maroua).

In terms of legal and regulatory framework of the ICT sector, the Government of Cameroon decided to grant CAMTEL (the traditional national operator), an exclusive concession on intercity connections which include the five links covered by this project. However, it should be noted that CAMTEL has the obligation to provide the capacities required by other operators throughout the national optical fibre backbone, under the strict control of the Telecommunications Regulatory Authority (ART), a public administrative establishment endowed with legal personality and financial autonomy set up by Law No. 2010/013 of 21 December 2010. Conversely, operators have the right to deploy their own infrastructure for urban links as they wish.

The project envisages the implementation of several ICT applications to support the diversification of Cameroon's economy through Green ICT Applications and Services. The project also supports Cameroon Government's rural development efforts through the establishment of a Market and Climate Information System (MCIS) for the Ministry of Agriculture and Rural Development (MINADER), aimed at enabling farmers and stockbreeders to access current prices of agricultural products and livestock, as well as weather forecasts, through the TCP and CEAC. This system will ultimately lead to a significant reduction in post-harvest loss of agricultural production in Cameroon estimated at 25% (source: MINADER) through the combined effects of farmer education and needs/production balance.

In addition to the local residents of these areas, the project impacts all inhabitants of Cameroon and, indirectly, the population of the sub-region through the expected reduction in the cost of ICT services following the integration of the telecommunications systems of Central African countries. Moreover, the deployment of a digital Climate Information System (MCIS) will improve the socio-economic inclusion of the rural population nationwide, especially farmers and

<sup>6</sup> For questions A.1 –A.7 in Part II, if there are no changes since PIF, no need to respond, please enter "NA" after the respective question.

<sup>&</sup>lt;sup>7</sup> For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which <u>Aichi Target(s)</u> the project will directly contribute to achieving..

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stockbreeders, who will be provided with access to information on prices and quantities of agricultural products to improve their productivity and strengthen their resilience to agricultural shocks linked to climate change.

### A1.c - Proposed alternative scenario, and expected outcomes and components of the project

The table below shows various baseline project activities and their costs, including: deploying solar equipment, installing computer equipment and office, defining institutional mechanisms for the use of renewable energies in ICT development, assessing conditions of renewable energy sources, and knowledge management, monitoring and evaluation financed with the GEF grant. Activities proposed for inclusion in the GEF funding request are shaded in green and indicated in the far right column.

## Summary of Baseline and GEF Funding Activities (UA million8)

Activities	<b>Total Amount</b>	Amounts funded by GEF
I- Works		
Work of implementing optical fiber infrastrcture	11.318	
Acquisition and installation of energy systems and air conditioner	1.711	
Acquisition and construction of local techniques	0.210	
Construction of logistics facilities	1.024	
Construction of special libraries and classrooms in two sites of ENSPT (Yaoundé and Buea)	0.286	
Deploying solar equipment for different centers (TCP, ECAC / DAA and CPF)	0.709	0.709
Deploying solar equipment for TCP, ECAC / DAA and CPF	3.410	
Pilot deployment wireless networks on three campuses (Yaoundé I, Bamenda and Maroua)	0.709	
II- Property		
Acquisition of the basic software and installation in central site	1.380	
Acquisition, installation and training on archiving software	0.128	
Acquisition, installation and software training on banking (e-banking module)	1.200	
Purchase of electronic certificates and media storage	0.120	
Acquisition, installation and training on equipment and software for e- Post and e-Banking	1.687	
Acquisition of equipment (servers, computers, sensors, etc.) and software for the ISCM	0.551	
Acquisition and installation of low energy consumption equipment for an early warning system under TCP, ECAC and CPF	0.118	0.118
Acquisition of equipment and software for optical fiber laboratories in Yaoundé and Buea	1.152	

<sup>&</sup>lt;sup>8</sup> At end december 2015, 1Unit of Account (UA)=1.538USD GEF6 CEO Endorsement /Approval GEFID9116 Cameroon ICT

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Acquisition of rolling means	0.060	
III- Consulting Services		
Implementation of the Environmental and Social Management Plan (ESMP)	0.332	
Management of component "Optical fiber infrastructure"	0.498	
Mastery of work for component "Optical fiber infrastructure"	0.830	
Writing a manual of procedures for management archives, development of technical tools management of physical archives and training personnel electronic records	0.089	
Technical audit, installation, configuration of the system	0.008	
Feasibility study on the implementation of the MCIS	0.157	
Development and installation of application tools, training, support, etc.	0.866	
Development of a Director of Development Plan for broadband infrastructure in Cameroon	0.118	
Study of communication links Foumban-Tibati-Tignère-Ngaoundere, Bamenda-Fundong-Wum-Bamenda, and N'Gaoundéré-Touboro	0.354	
Study of a CSIRT (Computer Security Incident Response Team) + PKI (Public Key Infrastructure) platform	0.157	
Feasibility study for a technology park (including national datacenter)	0.236	
Feasibility study for an Integrated Management System Electronic Identification of the Person (SIGIEP)	0.157	
Study on mobile financial services for promoting financial inclusion in rural areas	0.118	
Definition of institutional mechanisms for the use of renewable energies in ICT development	0.087	0.087
Assessment of renewable energy use conditions in rural areas	0.087	0.087
Study on the establishment of a central center for developing fiber optic skills at ENSPT	0.079	
Study of a pilot initiative on Internet access for three campuses (Yaoundé 1, Bamenda and Maroua)	0.079	
Developing a business model on fixing access costs to national and international connectivity	0.79	
Preparation of a study on the regulation of "Open Access"	0.79	
Knowledge management, monitoring and evaluation, etc.	0.121	0.121
Support for the design and implementation of training programs (ICT, entrepreneurship, etc.) to CPFs (Women's Promotion Centers)	0.150	
Technical audit, accounting and finance	0.157	
IV- Miscellaneous		

Compensation for those affected by the installation of FO	0.332	
Operation UCP / CAB and support to various committees (steering, technical and communication)	1.606	
Monitoring / evaluation of the sub-component "Support for women's empowerment" by MINPROFF	0.060	
Doctoral Fellowships for 4 students per year (3 female and 1 male) for SUPCOM Tunis theses	0.432	

A1.d - Incremental/ Additional cost reasoning and expected contributions from the baseline the GEFTF and SCCF and co-financing

Cost-effectiveness is reflected in the project design in a number of ways. It is worth noting that through careful project development, it has been possible to increase the benefits planned from the PIF stage.

This project involves the installation and commissioning of 916 km of optical fibre cables, also comprising active equipment as well as power and cooling systems. It is made up of five sections, namely Kumba-Mamfe, Mamfe-Ekok, Bamenda-Ndop-Kumbo, Bertoua-Batouri-Kentzou and Sangmélima-Djoum-Mintom-Ntam, located in the South-West, North-West, East and South Regions of Cameroon, respectively. These sections are part of the critical links of the national optical fibre backbone (with terminals to neighbouring countries) that Cameroon intends to cover in order to rapidly extend its network to reach 20 000 km of optical fibre by 2035.

Currently, there are two main technical alternatives for the deployment of optical fibre: satellite or microwave links. The use of satellite links suffers from the combined effect of prevailing high access cost and service quality that is far below that offered by optical fibre, not to mention the capacity limitations inherent in the technologies used (even the most recent). Even with the development of new satellite facilities (for instance O3b) using low orbit satellites, the cost difference is significant. In fact, satellite remains a redundant technology, allowing operators to compensate for the unavailability (due to technical damage, especially) of optical fibre, but at operating costs two to ten times higher than the latter. In short, satellite is not a sustainable alternative compared to optical fibre.

Microwave links allow the extension of broadband service coverage, particularly to underserved areas. However, while useful for point-to-point traffic (connection of base stations and collection networks), they cannot carry the huge amount of data expected to be transmitted through an optical fibre backbone. The migration of mobile operators in Cameroon to 3G and even 4G in the near future will induce significant increase in the level of Internet access and the bandwidth required. To this end, optical fibre is the only option that meets all these requirements (particularly to serve as support for the potential international traffic of neighbouring countries).

Furthermore, it should be noted that, based on technical studies conducted, the manual laying of fibre (as opposed to the mechanical method) was selected for this project. This option (despite its slightly higher cost compared with the mechanical method) induces beneficial effects in terms of revenue generation for the population concerned and indirect support under the project's population awareness component.

Alternative solutions were considered for project interventions which are decribed below along with the reasons they were not chosen. These are decribed in the table below.

#### **Alternative Solutions Explored and Reasons for Rejection**

Alternative Solution	Brief Description	Reasons for Rejection
Mechanized laying of optical fibre cables	Using slicers in digging ducts along the five sections identified in this project phase.	Quality risks related to the non-mastery of the various reliefs concerned, reason for which this method would not be easy to use. However, manual laying generates income for labour from the localities crossed, making the project favourable to local residents.
Supply of dark fibre (without active equipment)	In this case, it means supplying only optical fibre cables without the transmission equipment.	This is the solution chosen by CAMTEL but additional equipments are required to fully operationalize the ICT services

Using CAMPOST data centre to host ICT applications and services planned under the project

This option would mean using the CAMPOST Datacentre in its current state, for all planned ICT applications (hybrid mail, EDM and e-Banking).

This solution is not technically viable because current capacity is not even enough to meet intrinsic needs in CAMPOST. Moreover, there are plans to extend the same Datacentre in order to implement the e-Post and e-Banking project.

No component-level or outcome-level changes have been made from the PIF approval. By building on the updated baseline assessment carried out during PPG work, several GEF alternative scenarios are presented as follows.

T 11	( A (PD T)		
Baseline	(AfDK)	baseline scenario	

## Socioeconomic approach for the ICT development

The baseline project involves the establishment of infrastructure for information connection in rural areas in Cameroon. It does not address climate change or environmental issues specifically, but provides an ideal platform to maximize the mitigation potential in the use of ICTs.

The overall objective of this project is to help alleviate the impact of the high cost of telecommunications/ICT on the business climate in the sub-region. The construction of optical fibre infrastructure will help to reduce the cost of accessing high-quality ICT services.

The project will also generate additional resources for Cameroon not only through induced economic activities within the country itself, but also through taxes on data streams passing through the international underwater cables with landfall points in Cameroon.

## Knowledge building

In the baseline scenario, knowledge building is addressed exclusively from an organizational point of view, with the aim of improving knowledge in the area of national ICT infrastructure. The lessons, experiences and knowledge that will thus be derived from implementing this project will be managed from MINPOSTEL's Department of Infrastructure and Network Access (DIR).

#### **GEF** alternative scenario

## Sustainable approach of green ICT and renewable energy

In the GEF alternative scenario, the focus is put on the improvement of livelihoods of the communities along the CAB project intervention, which are facing challenges related to climate change, by using renewable energy technologies to ensure a sustainable and reliable power supply and enable universal access to information.

The GEF alternative scenario focuses on strengthening policy and institutional mechanisms to support the green extension of the ICT network, to maximise the exploitation of renewable energy sources and promote energy efficiency in rural areas. A conducive and equitable policy/institutional environment will be set up for promoting access, competition and investment in green ICT technologies, renewable energy, and energy efficiency.

Technical studies will be conducted on the potential use of renewable resources and energy efficient appliances in rural areas to power/operate community data centers. Emphasis will be put on maximizing the potential of the renewable sources with the best available technology to power the data centres.

Renewable energy systems and ICT equipment will be provided for community centers and other buildings at strategic locations for demonstration and to promote capacity building.

#### Capacity building and knowledge management

The GEF financing will build on lessons learned to promote an enabling environment for community-based knowledge management and dissemination. At a national scale, the GEF project will promote the awareness of solar technology and its application in the ICT sector.

The project will provide a platform for national and subnational dialogue on developing renewable energy technologies for application in telecommunications activities. Technical and administrative support will be provided to coordinate capacity-building and awarenessraising activities at a national scale.

The project will facilitate the collation, storage and

dissemination of lessons learned from this innovative
project to guide future endeavors. The project aims to
demonstrate how the extension of high-quality ICT
services can be carried out with long-term sustainability
in mind, and may serve as an example of sustainable
technology development for other countries in the region.

A1.e - Global Environmental Benefits, Adaptation benefits, and innovativeness, sustainability and potential for scaling up

Total project tons CO2 emission avoided				
Total TCPs (Transmission Control Protocols) installed during first phase of the project (a)	100			
Total energy required by 1TCP/day (b)	20kWh			
Total energy production by RE installed/Year $(c) = (a)x(b)$	730,000			
Grid emission factor for Cameroun (tCO2/Mwh) (d)	0.25			
Project tCO2 emission avoided/year (Tons CO2) (e) = (c)x(d)	182.50			
RE installed lifetime (years) (f)	25			
Other tCO2 emission reduction (400,000km physical trips avoided per year by data transfer) (g)	74			
Total direct tCO2 emission by GEF funding (Tons CO2) h=(e+g)x(e)	6,412.50			
Additional TCP installed after project (i)	200			
Total indirect tCO2 emissions avoided	9,125			
Total tCO2 emissions (direct and indirect) avoided over 25 years	15,538			

A.2. Child Project? If this is a child project under a program, describe how the components contribute to the overall program impact.

N/A

*A.3.* <u>Stakeholders</u>. Elaborate on how the key stakeholders engagement, particularly with regard to <u>civil society organizations</u> and <u>indigenous people</u>, is incorporated in the preparation and implementation of the project.

During the identification, preparation and appraisal missions, all stakeholders were consulted both in Government services (MINPOSTEL, MINADER, ART, CAMTEL CAMPOST, etc.) and the private sector (MTN Cameroon, Orange Cameroon, Nexttel, etc.). Discussions with these entities were helpful, for example, in the definition of the content of the technical assistance to be offered to ART, as planned under the "Institutional Support and Capacity Building" component, to ensure the effective implementation of the "open access" principle in the operation of the optical fibre infrastructure envisaged under the project.

A multi sectoral and extensive participatory approach comprising all relevant stakeholders including the government, private sector and NGOs will be used given the specific nature of the project. Also, a multidisciplinary approach will engage professionals from different sectors including energy and ICT. This will eventually enable the project team to solicit interest and ownership in attaining the set objectives.

The environmental and social assessment was conducted using a participatory approach, which was initiated during the early stages of the project when key stakeholders were invited to provide input on and validate the project's terms of reference. Field visits were carried out, along with interviews with representatives of various technical departments of

the concerned ministries, NGOs, private operators, socio-professional groups, riparian populations, local authorities, village chiefs, and opinion leaders.

Before each meeting, the project scope was presented to the stakeholder audience in terms of economic, social, cultural, and environmental issues, as well as measures taken by the project to mitigate and improve the effects of climate change. Thus, the opinions and comments of people and target groups were included in the evaluation.

Given the high number of villages and hamlets along the telecommunications network linkages, these consultations were held; i) in July and August 2013 for the Bertoua Batouri Kentzou network (546 persons including 27 women); ii) in September 2013 for the Bamenda Eykok Mamfe network (390 people including 98 women); iii) in December 2014 for the Kumba Mamfe network (136 people including 30 women); and iv) in December 2014 for the Sangmélima Ntam network (262 people including 88 women).

After the meetings were conducted, an analysis of the populations' positions and interests related to the project was carried out, which took into consideration the stakeholders' suggestions about how they might participate and be involved in the implementation of the project. The stakeholders' expectations and suggestions are synthesized in the following table and their questions and concerns were considered in the elaboration of the project plan.

#### **Expectations / Suggestions**

- Installation of safety devices around the trenches that will be dug, to help protect children and livestock;
- Extension of the regulations governing the protection of heritage and compensation of property in Cameroon;
- Support the project socially, including the integration of direct and indirect job creation, mainly targeting local youth.
- Development of a grid of positive and negative impacts to help improve the populations' understanding of the project;
- In the villages, lay optical fiber within 48 hours following the creation of trenches, in order to limit the risk of accidents;
- Provide information on the exact passage route of the optical fiber;
- Strengthening the security of the optical fiber at bridges to prevent theft of cables or vandalism;
- Provide more information on compensation procedures for households that will be affected by the network installation;
- Recruitment of local labor.

The project will work closely with stakeholders to continue to identify viable and profitable development opportunities resulting from the introduction of green ICT, renewable energy, and energy efficiency technologies. A rapid assessment will be conducted in each local district to ensure that all ideas and opinions were captured during the stakeholder meeting.

A.4. <u>Gender Equality and Women's Empowerment</u>. Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men.

The Gender Inequality Index (GII) Value for Cameroon was 0.622 in 2013, ranking it at 138<sup>th</sup> place worldwide. Although the ranking is low, Cameroon has taken several important policy actions to encourage gender equality in the country. Cameroon's 1972 Constitution (amended in 1996) contains measures to improve gender equality and also contains statements against gender discrimination. The country ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), and the UN Beijing Declaration and Platform for Action (BPfA). Cameroon's 2003 Poverty Reduction Strategic Paper (2003) includes objectives to improve the capacity of human resources amongst both genders to help build a qualified and competitive workforce. In January 2015, Cameroon adopted its first National Gender Policy, which includes ambitions to better include women in the economic circuit. The document also describes the importance of promoting equal opportunities to education, training, and information for girls, boys, men, and women (Internet Sans Frontières 2015). Despite these efforts, there is still work to be done in terms of ensuring gender equality in Cameroon, especially in regards to participation in the ICT sector.

There is currently a lack of specific government policies dedicated to promoting women's access to new technologies. For example, Cameroon's follow-up evaluation reports to the 1995 UN Fourth World Conference on Women in Beijing did not include specific measures for promoting women's access and training related to ICT, despite that this was outlined in the original 1995 agenda. As another example, Cameroon's 2015 budget dedicated to reducing gender inequalities was \$3,874,120 USD. However, there were no specific funds allocated from this budget dedicated to promoting women's access to technology in urban areas, let alone rural zones. No specific mention is made to the question of women and technology in Cameroon's 2005 government report; however, it bears mentioning that there has been government support for the creation of community telecenters in rural areas to promote the entire population's access to telecommunications. Finally, there is minimal reference made to gender in Cameroon's 2008 National Policy on ICT (Internet Sans Frontières 2015). Given this information, the need to promote the inclusion of women in ICT development has been duly noted and taken into account during the elaboration of this project.

The gender aspect of the project was analysed within the context of the optical fibre installation process in communities along the roads (see Technical Annex B.8). It highlighted gender disparities in education, health, employment, security and access to ICT. To fill the gaps identified by the analysis, the project will develop support for the empowerment of women by: (i) strengthening the logistics of 11 Women's Promotion Centres (CPFs); (ii) awarding doctoral scholarships to three female students related to ICT; (iii) providing community training for the initiation of at least 3,000 women; (iv) updating and validating CPF training modules to include gender considerations; (v) producing an ICT benchmark; and (vi) producing an ICT entrepreneurship training manual, with targeted distribution for women.

It should be noted that policies that relate to both women and the internet are the joint responsibility of the Ministry of Advancement of Women and the Family and the Ministry of Posts and Telecommunications. This joint responsibility, if capitalized upon properly, could provide an important springboard for promoting women's participation in the ICT sector. However, if coordination between the two structures is not strong, then this shared responsibility may actually act as a paralyzing dichotomy. Therefore, the project will make sure to integrate strategic planning between these two Ministries.

A.5 Risk. Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

The project risks have been altered to become much more specific, based on measures to be implemented in the project. They are decribed below:

**Risks that may hinder the achievement of results include:** (i) non-compliance with undertakings relating to the laying of optical fibre cables; (ii) failure to produce an impact on prices; (iii) premature degradation of the optical fibre due to lack of maintenance; (iv) lack of maintenance and upgrade of the various applications installed.

**Mitigation measures:** (i) The Government's commitment to implement the guidelines of the International Telecommunication Union (ITU); (ii) Bank support in the form of technical assistance to enable the necessary reform of the ICT sector, which analysis has shown will reduce connectivity costs; (iii) commitment by CAMTEL to allocate a substantial portion of the resources generated by the new connections for the maintenance of the road links and more generally the national backbone; and (iv) commitment by CAMPOST, in particular, to further invest in the extension of the reach of its existing products and services (hybrid mail, electronic document management (EDM), etc.) to ensure coverage of the entire country.

**Risks that may hinder achievement of the outputs are:** (i) the slow pace and lack of transparency in the procurement process; (ii) escalation of the cost of works; (iii) non-compliance with technical and functional specifications in the context of the various applications envisaged in the project; and (iv) delay in compensating project-affected persons (PAPs) on the Batouri-Bertoua-Kentzou road.

Mitigation measures: (i) expand competition by taking advantage of the size of works contracts and the key reform introduced by the Government through the establishment of a Ministry in charge of Public Procurement; (ii) take physical contingencies into account in the project financing plan; (iii) strengthen the Project Coordination Unit by

including a technical expert in charge of project supervision; and (iv) prioritize the compensation of PAPs when allocating the national counterpart financing.

Risks that may hinder achievement of procurement and financial management are: (i) significant weaknesses in the areas of procurement; (ii) poor financial management, especially weaknesses inherent in the entire Planning Programming-Budgeting-Monitoring (PPBM) chain and the absence of an integrated public finance management system are major drawbacks to public expenditure efficiency.

**Mitigation measures:** (i) the implementation of the public finance modernization plan will mitigate the risks by strengthening public expenditure efficiency in the ICT sector; (ii) the Bank made a review of public expenditure in 2013, and the recommendations emanating therefrom will be the subject of regular dialogue aimed at strengthening public expenditure efficiency in the ICT sector; (iii) the Bank's strict enforcement of its relevant rules and procedures, and the conduct of prior reviews as well as the Bank's supervision missions and technical and financial audits will ensure consistency between the specifications, actual services provided and work performed, disbursements and the loan agreement.

**Risks that may hinder achievement of market capabilities are:** (i) the difficulty faced by the Regulatory Authority in controlling CAMTEL's prices.

**Mitigation measures:** (i) operation includes the development of an economic model for the costing of access to national and international connectivity; (ii) enable the Telecommunications Regulatory Authority (ART) to sift through the catalogue of prices charged by the traditional operator and thus ensure the implementation of the "open access" principle guaranteed by regulating the sector for all private operators with licenses.

**Risks that may hinder achievement of governance are:** (i) a number of gaps related to the Bank's fiduciary requirements, the procurement procedures for the national competitive bidding (NCB) process are deemed largely compliant despite a number of gaps related to the Bank's fiduciary requirements; (ii) a letter of agreement to be signed with the government will identify weaknesses which should be remedied.

**Mitigation measures:** i) recruitment of an independent financial audit firm to ensure that funds are used rationally and for their intended purposes; (ii) prior review and approval by the Bank of all procurement activities for the project; and (iii) the use of direct payment disbursement methods to transfer project funds directly to contractors and service providers.

**Risks associated with climate change:** Extreme weather events due to climate change, such as floods and especially heat waves, can interfere with the proper functioning of ICT systems. Prolonged exposure to extreme weather may lead to degradation of the infrastructure, and acute weather events may compromise ICT services and reliability by disrupting essential services or degrading signal quality.

**Mitigation measures:** i) develop a business model that includes measures for promoting resilience of the infrastructure and end devices; ii) develop an infrastructure resilience plan at the national level; iii) an infrastructure maintenance fund will be established so that any degradation due to extreme weather events may be addressed promptly; iv) select network materials and devices that can withstand a wide range of weather conditions.

A.6. Institutional Arrangement and Coordination. Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The project executing agency is the Ministry of Post and Telecommunications (MINPOSTEL) acting through the CAB Cameroon Project Coordination Unit (PCU/CAB-Cameroon) set up since 2008 by the Bank and World Bank. This Unit currently consists of a Coordinator, an Administrative and Finance Officer (RAF), an Accountant, an Internal Auditor, a Procurement Specialist (SPM), an Administrative and Finance Assistant and a Procurement Assistant. It has a procedures manual that governs its operations. This Unit has the necessary experience to conduct the sector's operations. To implement this project, the staff's capacity will be strengthened by the addition of a technical expert (an ICT engineer) whose CV will be submitted to the Bank for non-objection review. Staff performance will be evaluated on at least a yearly basis.

Specifically, the Unit will be responsible for the technical monitoring of project implementation. In this regard, it will: (i) ensure that the State's commitments are honoured; (ii) conduct monitoring and evaluation; (iii) ensure compliance

with the project implementation schedule; (iv) prepare semi-annual and annual project progress reports; (v) prepare counterpart budgets and ensure their timely availability; (vii) ensure the financial management of the project (verification of detailed accounts, transmission of direct payment requests to the Bank); (viii) ensure timely submission of accounting and financial audit reports of the project; and (ix) prepare the Borrower's completion report for submission to the Bank.

The project has acquired extensive experience through the exchange with all countries of the sub-region since it was initiated. In coordination with the World Bank, the project has provided substantial resources for the financing of studies on the regional project, while continuing exchanges with countries involved since that time. The intervention will allow Cameroon to carry out these major infrastructure projects, particularly in regards to its ICT connections with neighbouring countries, while complying with international norms and standards in order to avoid project threats that may seriously undermine the economic spinoffs of the project and its reasonable financing costs.

#### Ministry of Post and Telecommunications (MINPOSTEL) CAB Cameroon Project Coordination Unit (PCU/CAB-Cameroon) Administrative Procurement Internal Coordinator and Finance Accountant Specialist Auditor Officer (RAF) (SPM) Administrative Procurement and Finance Assistant Assistant

#### Organization Chart of Project Executing Agency and PCU/CAB-Cameroon

#### Additional Information not well elaborated at PIF Stage:

A.7 *Benefits*. Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

**Environmental aspect:** The project is classified under Category 2, in accordance with the requirements of the Bank's Integrated Safeguard System. The Environmental and Social Impact Assessment (ESIA) and the Environmental and Social Management Plan (ESMP) were prepared in 2014 for the Bertoua-Batouri Kentzou and Bamenda-Mamfe Ekok areas (see Annex E). The project is also underpinned by the ESIA of the Sangmélima-Djoum-Mintom-Ntam and Congo (Mbalam) Border road project, as well as that of the Kumba Mamfe road link prepared in 2012. The studies were validated by the Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED) and were issued acceptance certificates. The optical fibre cable will be deployed along these road links, for which a Declaration of Public Utility (DUP) has been issued.

Climate Change: The project will help to reduce the carbon footprint of the electricity sector in Cameroon by providing TCP, CPF CEAC and DAA data centres with solar panels producing 190,000 kWh. It will prevent the emission of 47.5 tonnes of CO2 per year. ICT services also substantially reduce greenhouse gas emissions. Indeed, the

implementation of the e-Post and e-Banking projects will lead to the substitution of transfers with data transmission, thus eliminating the movement of persons estimated at 400,000 km/year. These avoided movements therefore represent 74 t CO2 / year. Hence, a total emission of 121.5 t CO2 will be avoided.

**Social impacts:** The extended project impact area is home to a population of 2,604,248 people. The direct impact area is inhabited by 616 468 people. Moreover, the project's positive externalities will benefit the population of Cameroon and the sub-region as a whole. The main positive impacts of the project are: (i) improved living conditions of rural residents with the enhancement of TCP, CEAC/DAA and CPF capacity in the project area; (ii) opening up of the project area; (iii) creation of employment opportunities and income improvement; (iv) development of agricultural activities with access to agricultural data banks at the central level; and (v) improved functioning of school and health infrastructure. Businesses will be encouraged to recruit local labour for trenching, laying of ducts, optical fibre cables, etc.

Gender and women-specific activities: To contribute to the promotion of gender equality and women empowerment, the project plans to (i) support the design and implementation of training programmes (ICT, entrepreneurship, etc.) for Women's Promotion Centres (CPF); and (ii) award doctoral scholarships to four ENSPT students per year (including three female students) throughout the lifespan of the project and support the Ministry for the Promotion of Women (MINPROF) in implementing this component. Additionally, it includes the organization of information sessions for young female students (high school girls, in particular) about career training streams leading to ICT professions, in an effort to contribute to the promotion of gender equality in public and private institutions providing ICT-related training.

A.8 *Knowledge Management*. Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in communities of practice, organize seminars, trainings and conferences) with relevant stakeholders.

The project will provide an opportunity to improve knowledge in the area of national ICT infrastructure. To better derive lessons from this project, a monitoring and evaluation mechanism will be set up by the Unit. Establishing key impact indicators prior to the project start-up and conducting impact assessment at the end of the project will help to provide useful information on the project outcomes and impacts. The lessons, experiences and knowledge that will thus be derived from implementing this project will be managed from MINPOSTEL's Department of Infrastructure and Network Access (DIR) and disseminated through annual reports and the Bank's website. The knowledge will be very useful for implementing the next CAB project.

The project will focus on Knowledge Management which is central to development of green ICT and renewable energy, and plays a key role in ensuring stakeholder participation at all levels. Knowledge production is often considered a shared experience between national level policy makers, private operators and local community members. The associated knowledge dissemination framework will include communities as generators of knowledge and promote peer-to-peer and lateral knowledge sharing across all stakeholders in the climate change domain in Cameroon with specific focus on the project areas.

#### B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 *Consistency with National Priorities*. Describe the consistency of the project with national strategies and plans or reports and assessements under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

Cameroon potentially occupies a strategic position for ICT development in Central Africa in view of the underwater cables (SAT3, WACS and ACE) that have landfall points on its coast and which could provide international data connectivity for the entire sub-region. Yet, of all its neighbours, the country has only one optical fibre link with Chad. Moreover, its own use of connectivity for data is still limited. In addition to the low Internet penetration rate, with only 6% of the population enjoying Internet access, the online service industry is barely starting to emerge.

Given the significant needs in terms of regional and national connectivity, and the catalytic effect of ICT in all sectors of the country, it was agreed that the Bank's intervention will follow the multi-phased project implementation method. The project is consistent with the Growth and Employment Strategy Paper (GESP), which places the challenge of growth and job creation at the centre of the Government's poverty reduction efforts, and is now the overall framework for the action of public authorities over the period 2010-2020. The recent adoption of the new national telecommunications and ICT development strategy (2008) is in line with GESP and aims to provide widespread ICT access to the Cameroonian population. The major objective of this strategy is to increase the supply of high-quality broadband electronic communication services at competitive prices. The project is also consistent with the Growth Acceleration Emergency Plan launched in December 2014 by the country's authorities, which aims to boost the implementation of GESP meant to transform Cameroon into an emerging economy by 2035. Lastly, it aligns with Pillar I of Cameroon's 2015-2019 CSP and the Regional Integration Strategy Paper (RISP) 2011-2015 for the Central African Region. It also contains positive externalities that will strengthen sector governance (Pillar II of the said CSP).

Beyond the strictly infrastructural aspects, this project is intended to help Cameroon develop a genuine digital economy in order to ultimately create enough jobs by improving factors of production. The introduction of the e-Post and e-Banking project for CAMPOST will complement the optical fibre system through new electronic products and services. In addition, the implementation of the technology park, the feasibility study of which is included in this project with a view to the implementation of the second CAB project, will help to create an ICT cluster housing in one place all players in the technology value chain, i.e. innovative companies (start-ups in particular), training institutions, research laboratories, etc.

#### C. DESCRIBE THE BUDGETED M &E PLAN:

The implementation of various project components will be monitored by MINPOSTEL's Department of Infrastructure and Access Networks (DIR) through the CAB Cameroon Project Coordination Unit (PCU/CAB-Cameroon). Joint supervision missions (donors and Government) and inter-donor coordination meetings will also report on the performance of the project in terms of physical and financial outputs.

To strengthen the system in place, it was agreed with the Cameroonian authorities that a Technical Committee led by MINPOSTEL will be set up to support the Unit in preparing the terms of reference, technical specifications and specifications relating to infrastructure building, assessment of various bids and proposals submitted for the procurement of various items envisaged, in cooperation with the technical expert, review and approval of reports and documents submitted by the contractor responsible for works implementation, etc.

In addition to the above-mentioned committees and the Project Steering Committee already in place, it is planned to set up a Project Communication Committee, which will be coordinated by the Head of MINPOSTEL's Communication Unit, which will work in cooperation with the officials in charge of communication in each of the entities involved in the project. It will coordinate activities relating, among others, to the publication of press articles, press briefing, television infomercials, etc., covering the project implementation.

Regarding the assessment of the level of achievement of development objectives, a socio-economic impact monitoring and evaluation mechanism will be put in place and implemented by the PCU/CAB. Project environmental and social impacts will be monitored by a local firm as part of ESMP implementation by the parties concerned, in cooperation with

MINEPDED, in an effort to overcome the PCU/CAB limitations identified in that area. Regarding the implementation of the "ICT Applications and Services" component, a technical audit of each planned project achievement will be conducted to ensure compliance with the initial specifications, given that the implementation of the optical fibre infrastructure will be entrusted to a separate manager who will supervise works scheduled on behalf of the beneficiary.

Report type	Prepared by	Responsibility	Preparation frequency/period	Submission
1. Workshop Report	PCU/CAB Staff	PCU/CAB	Prior to project	AfDB
		Coordinator	impelementation	
2. Implementation	PCU/CAB Staff	PCU/CAB	Per Reporting cycle	AfDB / GEF
Progress and Results		Coordinator / AfDB	agreed with the	Secretariat
Reports (IPRR)			GEF (bi-annually)	
3. Mid-Term	AfDB Project team /	PCU/CAB	Before mid-term	AfDB / GEF
Review Report	input from GEF	Coordinator / AfDB	review in January	Secretariat
	coordination unit and		2017	
	GEF Secretariat			
4. Terminal	AfDB Field office/ with	PCU/CAB	After project	AfDB / GEF
Evaluation	guidance from the GEF	Coordinator / AfDB	completion	Secretariat
	Secretariat			

## PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

## A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies<sup>9</sup> and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Mahamat Assouyouti		04/29/2016	Mahamat Assouyouti	+225 20 26 27 53	m.assouyouti@afdb.org
African	1 Meson Burn		Assouyouti	27 33	in.assouyoun@aido.org
Development	Assorption 1				
Bank					

 $<sup>^9</sup>$  GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF GEF6 CEO Endorsement /Approval GEFID9116 Cameroon ICT

**ANNEX A: PROJECT RESULTS FRAMEWORK** (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

### REPUBLIC OF CAMEROON

Country and Project Name: CAMEROON - Central Africa Backbone (CAB) Project - Cameroon Component

Project Goal: Contribute to the diversification of the economy by fostering the emergence of a digital economy in Cameroon

	Results Chain	Performance Indicators			Means of Verification	Risks/Mitigation Measures		
L		Indicator (including CSI)	Baseline Situation	Target		-		
Impact	Contribute to the diversification of Cameroonian's economy, breaking the digital isolation of the project target areas and regional integration through optical fibre infrastructure enabling access to neighbouring countries (Congo, Nigeria and RCA)	<ul> <li>✓ Percentage of ICT contribution to the tertiary sector</li> <li>✓ Number of potential international outlets</li> </ul>	✓ 53.5% in 2013 (source MINFI) ✓ 1	✓ 60% (at least) in 2019 ✓ 4	✓ Reports and Statistics from MINPOSTEL, ART, etc.     ✓ ITU, ECCAS and CEMAC reports			
	Outcome 1: Improved access of the population, government services and businesses to telecommunications / ICT services	✓ Penetration of Internet services ✓ Tele-density (mobile)	✓ 6% (2013) ✓ 76% (2014)	✓ 20% (2019) ✓ 90% (2019)	✓ Reports and Statistics from MINPOSTEL,     ART, etc.     ✓ Reports from	Risks: (i) Non-compliance with commitments regarding the laying of optical fibre cables; (ii) no impact on prices; (iii) premature degradation of the		
	Outcome 2: Reduced cost of access to telecommunications and Internet services	✓ Internet access costs  ✓ Improvement of the ICT legal and regulatory framework	✓ Rates for Internet services  ✓ 2015: Dissatisfaction of private operators with the	50 % reduction (at least) in 2019 in the price of Internet subscription  2019: Greater compliance by private operators with	MINADER, CAMPOST, etc.  Project impact assessments produced by the PCU/CAB-	optical fibre due to lack of maintenance (iv) lack of maintenance and upgradeability of the various applications installed.		
Outcomes			implementation of the "open access" principle	conditions of access to shared optical fibre infrastructure	Cameroon  ✓ Reports by ITU, ECCAS, CEMAC,	✓ Reports by ITU,	Reports by ITU, commitment to	Mitigation measures: (i) Government's commitment to implement the guidelines of the International Telecommunication
nO	Outcome 3: Contribution to the social, economic and financial inclusion of residents of the country's hinterland	✓ Number of people having access to banking services thanks to e-Banking	0 (2015)	✓ 17 000 new customers (2019)	etc.	Union (ITU); (ii) technical assistance for ART; (iii) commitment by CAMTEL and CAMPOST to ensuring the sustainability		
		✓ Number of farmers / stockbreeders with access to market and weather information	✓ 0 (2015)	✓ 20 000 (2019)		of infrastructure put in place.		
		✓ Number of people benefiting from solar electric terminal systems	✓ 0 (2015)	✓ 20 000 (2019)				

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	Outcome 4: Improved availability of training and access to ICT in institutions of higher learning	✓ Number of persons entering the Optical Fibre Skills Development Centre at ENSPT for initial and continuing training      ✓ Number of students with Internet access on campuses of Yaoundé I, Bamenda and Maroua Universities	✓ 0 (2015) ✓ 0 (2015)	<ul> <li>✓ 1345 (2019) → Initial (1060 in Yaoundé and Buea 285), 50% of them women</li> <li>✓ 500 (2019) → Continuing (300 in Yaoundé and Buea 200), 50% of them women</li> <li>✓ 65 000 students (2019)</li> </ul>		
	Output 1: Optical fibre infrastructure				✓ PCU/CAB-	Risks: (i) Slow pace and lack of
	✓ Optical fibre connections built	✓ Linear distance of optical fibre	✓ ≈ 6.000 km (2015)	✓ ≈ 7 000 km (2019) at least	Cameroon progress reports	transparency in the procurement process; (ii) escalation of the cost of works; (iii)
	✓ Technical sites built	✓ Number of technical sites along project links	✓ 0 (2015)	✓ 7 (2019)	✓ Control mission reports ✓ Project supervision	non-compliance with technical and functional specifications in the context of various project applications; (iv) delays in
	Output 2: ICT applications andservices ✓ ICT applications (e-Post, e-Banking, Market and Climate Information System) installed	✓ Number of new ICT applications developed and put in operation	✓ 0 (2015)	✓ 4 (2019)	reports  Project completion reports.	compensation of project-affected persons (PAPs) along the Batouri-Bertoua- Kentzou road section.
Outputs	Output 3: Institution and capacity building	<ul> <li>✓ Development and preservation of optical fibre infrastructure</li> <li>✓ Conduct of feasibility studies to prepare the next phase of the project: (i) laying of optical fibre cables along the Foumban-Tibati-Ngaoundéré-Tignère, Bamenda-Fundong-Wum, Ngaoundéré-Touboro road sections; (ii) a CSIRT+ PKI project; (iii) a technology park project (including a Datacentre); (iv) an integrated electronic system for the identification of persons (SIGIEP); and (v) a mobile financial service development project</li> </ul>	✓ 2015: Lack of strategic framework for the development of the national optical fibre backbone  ✓ 2015: Absence of foundations for a large-scale deployment of ICT applications/services	2019: Strategic decision-making documents prepared (Master Plan and study on profitability thresholds)      2019: Feasibility studies on the delivery of electronic administrative services to the public and private sector      52 (2019)	✓ PCU/CAB- Cameroon progress reports ✓ Control mission reports ✓ Project supervision reports ✓ ENSPT monitoring and evaluation report ✓ UN Women reports ✓ MINPROFF statistics ✓ Project Completion Reports.	Mitigation measures: (i) Close cooperation between MINPOSTEL and the Ministry in charge of Public Procurement; (ii) consideration of physical contingencies in the project; (iii) PCU/CAB capacity building; (iv) prioritization of the compensation of PAPs in the national counterpart funding.
		✓ Number of TCP, CEAC / DAA and Women's Promotion Centres (CPF) equipped	✓ 0 (2015)			
		✓ Number of reference optical fibre training centres	✓ 0 (2015)	✓ 2 (2019) on the ENSPT sites in Yaoundé and Buea		
		✓ Number of students awarded doctoral scholarships at ENSPT	✓ 0 (2015)	√ 4 (including 3 female students) during the project's lifespan		

✓ Support fo ✓ Monitoring technical in the socio-e environme ✓ Project acc audit; ✓ Project tec	r CPU/CAB-Cameroon; g and evaluation of the mplementation as well as conomic and intal impacts; counting and financial hnical audit.	✓ Audit reports ✓ Monitoring and evaluation reports of the various aspects of the project ✓ Technical audit reports	✓ 2015: No report	✓ 2019: At least 4 audit reports, at least 3 monitoring and evaluation reports and 1 technical audit produced, etc.	Progress reports of PCU/CAB-Cameroon     Control mission reports     Project supervision reports     Project completion reports.		
Components Resources						In EUR million	
B. ICT ap C. Institu	A. Optical fibre infrastructure B. ICT applications and services C. Institutional support and capacity building					Optical fibre infrastructure (Component A) ICT applications and services (Component	
D. Projec	t management				B) Institutional support and capacity building		9.158
Activities D. Projec					(Component C)		6.916
y y					Project management (Co	omponent D)	2.316
Key					Base cost		42.012
					Physical contingencies		2.941
					Financial contingencies		1.348
					Total project cost		46.301

<b>ANNEX B: RESPONSES TO PROJECT REVIEWS</b> (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).		
GEF6 CEO Endorsement /Approval GEFID9116 Cameroon ICT		

## ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS $^{10}$

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: \$100,00						
Project Preparation Activities Implemented	GEF/LDCF/SCCF/NPIF Amount (\$)					
	Budgeted Amount Spent Amount					
	Amount	<b>Todate</b>	Committed			
Consultancy preparation contract	60,000	40,000	60,000			
Site visit and stakeholders consultations	30,000	25,000	30,000			
Contingency	10,000	2,000	10,000			
Total	100,000	67,000	100,000			

If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

GEF6 CEO Endorsement /Approval GEFID9116 Cameroon ICT

## ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF Trust Funds or to your Agency (and/or revolving fund that will be set up) N/A

Annex E : Cameroon - Central Africa Backbone (CAB) Project - Phase 1 - Summary of the Environmental and Social Management Plan (ESMP) - 05 2015

Please download at the following link: <a href="http://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Cameroon\_">http://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Cameroon\_</a>-

Central Africa Backbone CAB Project %E2%80%93 Phase 1 %E2%80%93 Summary of the Environmental and Social Management Plan ESMP %E2%80%93 05 2015.pdf