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Report No: 68888-NI

PROJECT PAPER  
ON A  
PROPOSED ADDITIONAL CREDIT  
IN THE AMOUNT OF SDR 3.3 MILLION  
(US\$5 MILLION EQUIVALENT)  
TO THE  
REPUBLIC OF NICARAGUA  
FOR THE  
RURAL TELECOMMUNICATIONS PROJECT  
May 14, 2012

Transport, Water and Information and Communications Technology  
Latin America and Caribbean Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective May 9)

Currency Unit = Córdoba  
21.04 Córdobas = US\$1  
US\$1.55 = SDR 1

## FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
CPS	Country Partnership Strategy
ENITEL	Empresa Nicaragüense de Telecomunicaciones
FITEL	Fondo de Inversión en las Telecomunicaciones
FM	Financial Management
GON	Government of Nicaragua
ICT	Information and Communication Technologies
IDA	International Development Association
PCU	Project Coordination Unit
IPDP	Indigenous Peoples Development Plan
IPP	Indigenous Peoples Plan
ISR	Implementation Status Report
LAC	Latin America and the Caribbean
OBA	Output Based Aid
OP	Operational Policy
PAD	Project Appraisal Document
PDO	Project Development Objective
POP	Point of Presence
PP	Project Paper
RAAN	North Atlantic Autonomous Region
RAAS	South Atlantic Autonomous Region
TELCOR	Instituto Nicaragüense de Telecomunicaciones y Correos
TOR	Terms of Reference

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**NICARAGUA**  
**ADDITIONAL FINANCING FOR RURAL TELECOMMUNICATIONS PROJECT**  
**CONTENTS**

Project Paper Data Sheet

Project Paper		<b>Page</b>
I.	Introduction	6
II.	Background and Rationale for Additional Financing	6
III.	Proposed Changes	9
IV.	Appraisal Summary	12

Annexes

1.	Revised Results Framework and Monitoring Indicators	15
2.	Operational Risk Assessment Framework	18
3.	Procurement Special Provision and Procurement Plan	21



**NICARAGUA**

**RURAL TELECOMMUNICATIONS PROJECT**

**ADDITIONAL FINANCING DATA SHEET**

<b>Basic Information - Additional Financing (AF)</b>	
Country Director: C. Felipe Jaramillo Sector Manager/Director: Doyle Gallegos /Jose Luis Irigoyen Co-Team Leaders: Arturo Muentre Kunigami, Josef Trommer Project ID: P129264 Expected Effectiveness Date: October 2012 Lending Instrument: Specific Investment Credit Additional Financing Type: Scaling Up	Sectors: Telecommunications (95%) and Sub-national government administration (5%) Themes: Rural services and infrastructure (P) Environmental category: B Expected Closing Date: March 31, 2015 Joint IFC: N/A Joint Level: N/A
<b>Basic Information - Original Project</b>	
Project ID: P089989 Project Name: Nicaragua Rural Telecommunications Project Lending Instrument: Specific Investment Credit	Environmental category: B Expected Closing Date: March 31, 2015 Joint IFC: N/A Joint Level: N/A
<b>AF Project Financing Data</b>	
<input type="checkbox"/> Loan <input checked="" type="checkbox"/> Credit <input type="checkbox"/> Grant <input type="checkbox"/> Guarantee <input type="checkbox"/> Other: Proposed terms: Specific Investment Credit that has a grace period of 10 years and a final maturity of 40 years.	
<b>AF Financing Plan (US\$m)</b>	
Source	Total Amount (US \$m)
Total Project Cost:	<b>6.5</b>
Cofinancing:	
Borrower:	<b>1.5</b>
Total Bank Financing:	<b>5.0</b>
IBRD	
IDA	
New	
Recommitted	<b>5.0</b>
<b>Client Information</b>	
Recipient: Republic of Nicaragua Responsible Agency: Instituto Nicaragüense de Telecomunicaciones y Correos (TELCOR) Contact Person: Mr. Ramon Medrano Telephone No.: 505-8852-9898 Email: <a href="mailto:rmedrano@telcor.gob.ni">rmedrano@telcor.gob.ni</a>	

AF Estimated Disbursements (Bank FY/US\$m)						
FY	2013	2014	2015			
Annual	0.8	2.1	2.1			
Cumulative	0.8	2.9	5.0			
Project Development Objective and Description						
<p>Original project development objective: <i>“to increase access to and reduce costs of telecommunications services in rural areas of Nicaragua”</i>.</p> <p>Revised project development objective: N/A</p> <p>Project description:  <b>Component 1:</b> Expansion of Telecommunication Infrastructure in Expanded Rural Areas, US\$2.6 million (of which IDA US\$2.6 million).  <b>Component 2:</b> Institutional Strengthening of Sector Regulator and Technical Assistance to Communities, US\$2.0 million (of which IDA US\$1.0 million)  <b>Component 3:</b> Project Management, US\$1.9 million (of which IDA 1.4 million).</p>						
Safeguard and Exception to Policies						
Safeguard policies triggered:						
Environmental Assessment (OP/BP 4.01)				[X]Yes [ ] No		
Natural Habitats (OP/BP 4.04)				[X]Yes [ ] No		
Forests (OP/BP 4.36)				[ ]Yes [X] No		
Pest Management (OP 4.09)				[ ]Yes [X] No		
Physical Cultural Resources (OP/BP 4.11)				[X]Yes [ ] No		
Indigenous Peoples (OP/BP 4.10)				[X]Yes [ ] No		
Involuntary Resettlement (OP/BP 4.12)				[X]Yes [ ] No		
Safety of Dams (OP/BP 4.37)				[ ]Yes [X] No		
Projects on International Waterways (OP/BP 7.50)				[ ]Yes [X] No		
Projects in Disputed Areas (OP/BP 7.60)				[ ]Yes [X] No		
Does the project require any waivers of Bank policies?				[ ]Yes [X] No		
Have these been endorsed or approved by Bank management?				[ ]Yes [ ] No		
Conditions and Legal Covenants:						
Financing Agreement Reference	Description of Condition/Covenant			Date Due		
ARTICLE V (5.01)	Amended Implementation Agreement has been signed by the parties thereto.			Effectiveness		
ARTICLE V (5.01)	Operational Manual has been updated by TELCOR in a manner acceptable to the Association.			Effectiveness		

## I. Introduction

1. This Project Paper seeks the approval of the Executive Directors to provide an additional credit in the amount of SDR3.3 million (US\$5 million equivalent) to the Republic of Nicaragua for the Rural Telecommunications Project (P089989, Cr.4168). On behalf of the Republic of Nicaragua, the Ministry of Finance and Public Credit officially requested the Additional Financing (AF) in a letter dated October 14, 2011.
2. The proposed AF will finance the costs associated with scaling-up activities for providing telecommunications services in Nicaragua's Caribbean coastal region and Rio San Juan; both regions being of high priority for the Government of Nicaragua. The addition of these regions will offer telecom coverage to most of rural Nicaragua, thereby filling a significant gap in access. The AF will include the expansion of activities under all three components: (1) expansion of telecommunication infrastructure in rural areas; (2) institutional strengthening of the sector regulator and technical assistance to rural communities; and (3) project management and auditing. In addition, the AF will include the revision of project indicators, to include, among others, core ICT indicators as required by current guidelines and changes in targets to take the scaled-up activities into account. The new activities would be fully consistent with the Development Objectives of the ongoing Rural Telecommunications Project (Cr.4168). The closing date of the original Credit (Cr.4168) will be extended to match the closing date of the AF which is March 31, 2015.
3. **Partnership Arrangements.** The team does not envisage formal partnership arrangements with any international financing agencies under the AF. However, the team plans to continue its collaboration with the Government of Finland. This collaboration has consisted of coordinated interventions in municipalities where the Bank project has introduced access to ICT and the Finnish program follows with a menu of ICT services for governments using the new infrastructure. This has proven a good model in collaborative information society development and worked particularly well in the Province of Estelí. In addition, the team is exploring connections with other donors active in Nicaragua's east coast including the European Union (EU), which is considering a *Sustainable Tourism Development Project*. Finally, the Government of Nicaragua will contribute US\$1.5 million in counterpart funds, principally to finance investments in necessary goods and non-consultant services.

## II. Background and Rationale for Additional Financing.

4. Nicaragua remains the second poorest country in Latin America and the Caribbean, ahead of only Haiti, with nearly half of the population living below the poverty line. A succession of external shocks including natural disasters<sup>1</sup>, high food prices, and the global financial crisis has had a negative impact on Nicaragua's growth. However, recent indicators suggest an economic recovery with growth rates reaching 4.5 percent in 2010 and 3.5 percent in 2011.

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<sup>1</sup> Hurricane Felix struck the northern border of Nicaragua in 2007, causing floods and landslides that resulted in widespread damage to lives and livelihoods throughout the affected areas.

5. The Telecom and Postal sectors are currently regulated by TELCOR (*Instituto Nicaraguense de Telecomunicaciones y Correos*) according to the General Law of Telecommunications and Postal Services and the Operation of Public Service Telecommunications Laws. Despite important advances in recent years, including double digit growth since 2006 in the percentage of mobile subscribers (86 percent in 2011), access to telecommunication services in Nicaragua remains low, particularly in rural areas of the country. Fixed broadband internet penetration is only 1.1 percent, significantly lower than the Latin American regional average of about 7 percent<sup>2</sup>.
6. Nicaragua's current telecom regulatory framework encourages competition and private sector participation. Operators are obligated to interconnect to all other operators, and mechanisms for arbitration are in place in case no agreement for doing so is reached. Infrastructure sharing is allowed, though not mandatory, which creates problems given the dominance of the incumbent operator (Claro, formerly Enitel, which accounts for about 60 percent of the mobile market). Activities under the AF will require interested operators to include infrastructure sharing clauses in their contracts. In addition, the Project will encourage local and international telecommunications operators specialized in rural areas to roll-out and maintain regional networks<sup>3</sup> transmission infrastructure.
7. **Original project design.** The Rural Telecommunications Project (Cr.4168) was approved by the Board of Directors on April 27, 2006, signed on June 1, 2006, and became effective on January 5, 2007. The total cost of the project was US\$10.2 million, of which US\$7 million was provided by IDA and US\$3.2 million by the Government of Nicaragua. The Project's Development Objective (PDO) is to: "increase access to and reduce costs of telecommunications services in rural areas of Nicaragua". Specific objectives include the following: (i) to benefit rural areas where some of Nicaragua's poorest and most isolated inhabitants live; (ii) to build critical infrastructure at a very low cost compared with other infrastructure projects; (iii) to use infrastructure built by the project in other important government initiatives in the finance, decentralization, education and public health sectors, and to also support more transparent and accountable governance; and (iv) to promote increased private sector investment and facilitate communications and remittances to rural populations from Nicaragua's sizable immigrant communities in the U.S. and Costa Rica, among others. The Project is being successfully managed by the Project Coordination Unit (PCU), a small, highly specialized unit embedded in TELCOR (Telecommunications and Postal Institute of Nicaragua). The PCU reports directly to the head of the sector regulator and Director of TELCOR. The Project's original closing date was June 30, 2011. After initial delays in declaring the project effective (due to changes in Government personnel)<sup>4</sup>, project performance has steadily improved. In recognition of this history, a one-year extension was granted to June 30, 2012.
8. **Project performance today.** The Project is progressing well overall, and is currently rated Satisfactory towards achievement of PDO and Moderately Satisfactory in its Overall Implementation Progress (IP). No financial covenants have been breached and the project

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<sup>2</sup> [www.wirelessfederation.com](http://www.wirelessfederation.com)

<sup>3</sup> Regulation enabling rural telecom operators was sponsored by TELCOR and financed by the Project.

<sup>4</sup> Change of government in Nicaragua in mid-2006.



has not had any significant fiduciary problems. Telecommunications services and infrastructure have been extended to rural areas, and prices for internet access in rural areas have been reduced dramatically. Results from the most recent Implementation Status and Results Report (ISR) for the project show that its impact so far has been consistent with the expectations set out in the PAD as seen below:

- **Component 1: Rural Access** - New broadband internet points of presence have been installed in 101 (out of 153) municipalities throughout the country. With the exception of the majority of municipalities in the Caribbean coastal region and Rio San Juan regions (target of the AF), most of Nicaragua's rural municipalities have access to broadband services at the same prices as in Managua. Thirty-six radio base stations and 104 telecenters have been installed for access to mobile and internet in rural communities at affordable rates. Two additional base stations will be installed before the end of the original project for a total of 38. An independent impact evaluation (December 2011<sup>5</sup>) found telecommunications infrastructure as well as the telecenters financially and operationally sustainable, and closely monitored by local stakeholders, including TELCOR. In this context, overall management of the telecenters will be handed-over to FITEL<sup>6</sup> (telecom investment fund) to guarantee its long-term sustainability. In addition, close to 600 public phones have been installed in rural areas that did not have a public access point before. Of these public phones, 100 were installed in communities without access to electrical power by using renewable sources of energy (e.g. solar and wind).
  - **Component 2: Institutional Strengthening of Sector Regulator and Technical Assistance to Communities** - A new regulatory framework on microtelcos (small scale telecom operators) was approved in August 2011 to foster local entrepreneurship. Additionally, a new Telecommunications Law has been drafted and is being reviewed by the executive branch of Government (including TELCOR) before presentation to Congress. Furthermore, the Project has been supporting various training activities for TELCOR staff, and following cooperation agreements with the Government of Finland, the Project and TELCOR has been supporting the installation of e-government applications in over 50 municipalities (registry of cattle branding, citizen registry, internal accounting and tax collection).
  - **Component 3 Project Management** - Project management has been rated satisfactory, and the Government (principally through TELCOR) has provided strong support for its implementation. All procurement components have been completed satisfactorily and financial management is currently rated Satisfactory.
9. **Rationale for requesting AF.** After careful consideration, additional financing has been identified as the most effective instrument to preserve and capitalize on the existing Project's momentum and achievements. Furthermore, the proposed additional credit is consistent with the current World Bank Group FY08-12 Nicaragua Country Partnership Strategy (Document No. 39637-NI) discussed by the Executive Directors in October 2007; and is consistent with

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<sup>5</sup> Informe final: Monitoreo y Evaluación de Impacto a Diciembre del 2011 del Proyecto de Telecomunicaciones Rurales 2005-10. Management, Coaching & Consulting Group S.A., February, 2012.

<sup>6</sup> FITEL (investment fund for telecommunications) was established by Presidential decree in 2003, under TELCOR.

the CPS under preparation. Moreover, the AF will support the CPS focus on expanding economic opportunities for the poor, predominantly in rural areas. The AF will support the Government's effort to build a stronger economy and improve social equity and opportunity for the poor in rural areas. The Caribbean Coast which includes the North Atlantic Autonomous Region (RAAN), South Atlantic Autonomous Region (RAAS), and the Department of Rio San Juan—are areas where the poverty level is nearly 55 percent and where poverty is especially prevalent among indigenous and Afro-descendant populations that live mainly in small and remote communities.

### III. Proposed Changes

10. **Proposed AF project.** Consistent with the Government's Caribbean Coast Development Strategy (*Plan de Desarrollo de la Costa Caribe*) to increase access to telecommunication services in the region by at least 40 percent, in October 2011 the Government requested US\$5 million in Additional Financing for new activities to expand the impact of the ongoing Rural Telecommunications Project (with Government co-financing of US\$1.5 million). The closing date of the original Credit (Cr.4168) will be extended to match the closing date of the AF which is March 31, 2015. No changes are proposed to the existing PDO.
11. The activities to be financed under the proposed AF would be implemented over a period of thirty-six months. This extended period will allow scaling-up activities under the original project to the regions along the Caribbean Coast and Rio San Juan, both areas of high priority for the Government of Nicaragua. The AF is expected to bring ICT infrastructure and the skills to use technology to rural and low-income areas that currently do not have (or have only limited) access to telecom services, thus contributing to social and economic development of the region.<sup>7</sup> The AF would extend activities under all three existing project components as follows:

***Component 1: Expansion of Telecommunication Infrastructure in the Rural Areas (US\$2.6 million, of which IDA US\$2.6 million).***

Assistance in connection with the rollout and provision of public payphones and establishment of a wireless network and services in the rural and underserved areas to be selected in accordance with the criteria set forth in the Operational Manual through the installation of base stations and requisite related network elements (collectively, the OBA Networks) which will be connected to other public telecommunications networks through microwave links, repeater stations, fiber optic cables and other network elements, as necessary.

Establishment of a network of POPs in the areas mentioned above which do not have access to the internet, including the establishment of telecenters therein.

More specifically, the objective of this component is to stimulate the demand and supply of broadband internet, mobile coverage, public payphones, and telecenters in underserved rural

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<sup>7</sup> WB study: *Information and Communications for Development 2009*, suggests that an increase of 10 percent in broadband penetration in a developing country results in a 1.38 percent increase in GDP growth.

communities in the Caribbean coastal region and Rio San Juan using competitive mechanisms (such as output-based aid or OBA) for private sector operators to build and operate shared infrastructure. The OBA tender process has proven a successful mechanism for private sector involvement in installing, operating, and maintaining telecommunications infrastructure under the ongoing Project. Activities under this component will seek to provide telecommunication infrastructure and services to at least forty underserved communities concentrated in twenty municipalities in RAAS and RAAN, as well as six municipalities in the Department of Rio San Juan. These activities are expected to benefit over 200,000 people<sup>8</sup>. In addition, activities under this component will continue to offer incentives such as competitive pricing for private sector telecommunications services to increase coverage of mobile networks on a commercially-sustainable basis. This approach will better enable public entities (including national and regional government institutions), individual consumers, and businesses to become internet and phone subscribers. Furthermore, the Project will continue to expand the network of telecenters in the Caribbean coastal region and Rio San Juan using a business model of local ownership (including Municipal Governments, NGOs, local private sector, and capacity building) established under the ongoing Rural Telecommunications Project.

***Component 2: Institutional Strengthening of Sector Regulator and Technical Assistance to Communities (US\$2.0 million, of which IDA US\$1.0 million).***

Provision of technical assistance to TELCOR to support its restructuring and in the areas of competition, interconnection, price regulation, resolution of disputes, consumer rights and complaints, accounting for costs and new trends of regulation, including: (i) the review of the current legal and regulatory framework applicable to Recipient's telecommunications sector to support market liberalization in general and specifically to give effect to the implementation of the OBA Networks referred to in component 1; (ii) the development of a modernized organizational structure for TELCOR and the carrying out of an assessment of its staff needs; and (iii) the provision of technical assistance to carry out feasibility studies for additional universal services projects, including the preparation of bidding documents therefore.

Carrying out of training for TELCOR's staff to improve their skills, including the identification and preparation of training plans based on skills assessments and in accordance with the new organizational structure.

Provision of internet applications and technical assistance to users of the POPs in the Recipient's rural communities, including, *inter alia*, MECD, MHCP, MAG-FOR, MINSA, and the areas referred to in the first paragraph of Component 1 above.

More specifically, this component would strengthen the institutional capacity of TELCOR to design projects by conducting detailed pre-feasibility studies and preparing tender documents. In addition, this component will continue to provide relevant training to TELCOR and local government staff in targeted ICT areas. Additionally, activities under this component will help to establish a *Regional e-Government Data Center* for the Caribbean

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<sup>8</sup> As estimated by the March 2012 technical feasibility study (Estudio de Factibilidad y Diseño TIC Costa Caribe).

Coastal area. Finally, this component will support the design and implementation of at least four e-Government applications such as distance learning programs to strengthen productive capacity and programs to improve the quality of education, as well as health and disaster prevention services. The Center will help to foster the region's transition into a knowledge-based economy. Internet or mobile applications and capacity-building activities will be chosen by TELCOR and local regional authorities based on proposals made by national and local government agencies, private sector, NGOs, and academic institutions.

***Component 3: Project Management (US\$1.9 million, of which IDA US\$1.4 million)***

Strengthening the technical capacity of TELCOR's development division to implement the Project, including monitoring and evaluation, through the provision of technical assistance, training, operating costs and equipment. And Carrying out of the Project audits.

More specifically, this component will finance the provision of technical assistance, equipment, training, and operating costs needed to establish, operate, and strengthen the Institutional Development Unit (PCU/TELCOR). Additional funding will enable these units to more effectively coordinate, monitor, and evaluate implementation of project activities (including periodic audits).

**Costs by component (US\$ million)**

<i>Component</i>	<i>Original cost</i>	<i>Changes with AF</i>	<i>Revised cost</i>
1. Rural Access	8.0 (IDA 5.3)	2.6 (IDA 2.6)	10.6 (IDA 7.9)
2. Regulatory Capacity Strengthening and Technical Assistance to Communities	0.8 (IDA 0.7)	2.0 (IDA 1.0)	2.8 (IDA 1.7)
3. Project Management and Audit	0.7 (IDA 0.6)	1.3 (IDA 1.0)	2.0 (IDA 1.6)
4. Contingencies	0.7 (IDA 0.4)	0.6 (IDA 0.4)	1.3 (IDA 0.8)
<b>Total</b>	<b>10.2 (IDA 7.0)</b>	<b>6.5 (IDA 5.0)</b>	<b>16.7 (IDA 12.0)</b>

12. ***Restructuring of Results Framework:*** The AF allows an opportunity to revise some of the project indicators to include core sector indicators for ICT, as defined in the latest Bank guidelines for IDA-supported investment operations, dated July 1, 2009. Proposed changes to the results framework are detailed in Annex 1.
13. ***Institutional and Implementation Arrangements:*** The project will continue to be implemented by the existing Project's Institutional Development Unit (PCU/TELCOR) within TELCOR, with direct reporting to the Executive President of TELCOR. The PCU will continue to be in charge of the management of all aspects of the project implementation including coordination with the Autonomous Governments of RAAS and RAAN and Department of Rio San Juan. In this context, PCU/TELCOR plans to have permanent presence in the region providing technical assistance and coordinate activities with regional governments, NGOs that work with ethnic groups, municipalities, and local authorities in indigenous communities.

#### **IV. Appraisal Summary.**

14. **Technical Feasibility:** A technical feasibility study has been carried out by TELCOR, under the original project, to assess telecom infrastructure gaps and needs in RAAS, RAAN and Rio San Juan. The study includes a proposed technical proposal and cost estimates, as well as a proposed business model that will make it attractive for the private sector to participate and encourage operators to provide telecom services across the entire region at competitive prices. These operators will be able to offer retail services in more profitable urban areas and, in exchange, will be asked to provide wholesale services to less profitable, smaller, and more remote communities within the planned network. Furthermore, small rural telecommunications operators (managed by local entrepreneurs) will be able to provide telecommunications services to remote communities under a prepaid platform that the wholesale operator would install. This arrangement would increase sustainability at both the wholesale and retail levels in regions targeted by the AF. Finally, to foster demand and usage, the Project will supply devices to small communities, such as smartphones, tablets, or other computers via arrangements that have proven successful when establishing telecenters under the original Project.
15. Technical specifications for designing and building transmission infrastructure under the AF will take into consideration the high risk of hurricanes and floods in the Caribbean Coast by including infrastructure (e.g. towers) with a high resistance to hurricane-force winds and equipped with power redundancy in case of weather-related emergencies.
16. **Possible Risk Factors:** Traditionally commercial telecom operators in Nicaragua resist sharing infrastructure (primarily ICT towers) with competing operators, especially in markets with low rates of return. To mitigate this risk, the Project's open and transparent tender process will establish that shared infrastructure will be a condition for awarding contracts. Furthermore, the Project will launch an information campaign to encourage international operators specialized in rural ICT infrastructure to consider bidding for these contracts. Given the above, and taking into account the overall innovative approach through which the infrastructure will be rolled out in some of the most rural and isolated areas of the country, the overall implementation risk rating is Moderate.
17. Complex governance structures could complicate Project implementation in RAAN, RAAS, and Rio San Juan. In addition to local indigenous authorities, Project activities also must be coordinated with government offices in the autonomous regions as well as at the national level. Past experience has proven that it can be difficult to reach agreement among all stakeholders on matters important for project implementation. During the preparation of this AF it was clear that all stakeholders support the Project (including governance arrangements). However, to further mitigate this risk, the Project will establish clear channels of communication. More specifically, TELCOR and Regional Governments will appoint locally-based points of contact to coordinate Project activities with local governments and communities during implementation. In addition, the Project will include local consultations during preparation and implementation to ensure effective coordination. The Project team will also liaise with three other Bank projects and a trust fund that have extensive experience coordinating across these multiple layers of government in the autonomous regions.

18. Finally, costs of implementation can run higher in regions that will benefit from the AF, in contrast with other parts of the country that are easier to access. These higher costs stem from a general lack of transportation infrastructure, severe weather conditions, and lack of local skilled labor and suppliers. This context has been taken into account during project design. However, possible cost-overruns will be monitored closely during Project implementation.
19. **Financial Management:** The proposed AF will continue to use the accounting and Financial Management (FM) arrangements that are applicable to the ongoing Rural Telecommunications Project (P089989, Cr.4168) which have been assessed as satisfactory. The borrower will have two separate “Designated Accounts” to distinguish between activities financed under the ongoing Credit and the AF.
20. **Procurement:** Procurement for the proposed AF would be carried out in accordance with the World Bank’s procurement guidelines<sup>9</sup> and the provisions stipulated in the Credit Agreement. For each contract to be financed by the Credit, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The AF will use all procurement related documents used in the original project.
21. The PCU/TELCOR would be expected to maintain its capacity for selecting consultants and procuring goods, works and services for both completion of contracting under the original Credit as well as under the AF. TELCOR has prepared a Preliminary Procurement Plan for the entire scope of the Project and a detailed and comprehensive procurement plan that includes all contracts for which bid invitations and invitations for proposals are to be issued in the first 18 months of Project implementation. The Procurement Plan will be available at the Procurement Plans Execution System (SEPA).
22. **Social and Environmental Safeguards:** The environmental category of the project continues to be “B”. The AF will newly trigger OP 4.04 on Natural Habitats, OP 4.11 on Physical Cultural Resources, OP 4.12 on Involuntary Resettlement, and OP 4.10 on Indigenous Peoples. Consequently, the client carried out Social and Environmental Impact Assessments, which include a series of free, prior and informed consultations in indigenous and afro-descent communities that are expected to become beneficiaries of the project. The studies concluded that the environmental and social impacts of the project, for the most part, are expected to be minimal, site-specific and manageable to an accepted level. As the exact locations of the proposed infrastructure are unknown at appraisal, an Indigenous Peoples Planning Framework (IPPF), Resettlement Policy Framework (RPF) and an Environmental Management Framework (EMF) have been prepared and disclosed.

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<sup>9</sup> “Guidelines Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers”, dated January 2011; and the World Bank’s “Guidelines Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers”, dated January 2011.

23. ***Indigenous Peoples Planning Framework (IPPF)***. The IPPF will assist the executing agency to determine whether indigenous peoples are present in any of the sub-project areas, and if so, to ensure that the interested communities support the proposed activities as well as any additional measures required to maximize their culturally appropriate benefits and/or avoid potentially adverse impacts. Some of the conclusions from the IPPF for the AF are: The people surveyed considered telecommunications services to be a real need that will significantly reduce costs. In addition, the vast majority of the people surveyed considered the installation of ICT infrastructure (towers and antennas) as harmless. The social impacts derived from the Project can be managed adequately during the phases of design, construction, and operation by following the Social Framework and Communications Manual developed in the SA. The IPPF was disclosed on the Bank's website on May 10, 2012 and in-country on May 10, 2012.
24. ***Resettlement Policy Framework (RPF)***. The RPF outlines the principles and procedures for possible, though expected to be minimal, resettlement and/or compensation of subproject-affected people, and establishes standards for identifying, assessing and mitigating negative impacts of program supported activities. In addition, the RPF will guide the preparation and implementation of resettlement action plans (RAPs) for each individual sub project that triggers the involuntary resettlement policy. The RPF was disclosed on the Bank's website on May 10, 2012 and in-country on May 9, 2012.
25. ***Environmental Management Framework (EMF)***. The Environmental Assessment (EA) concluded that the expected impact of the proposed AF is manageable provided that EA recommendations are followed design, construction, and operation of the facilities. Furthermore, Environmental Management Plans (EMPs) will be developed for each investment activity during implementation. EMP recommendations will be integrated into the contracts with private sector providers responsible for installing, operating, and maintaining the telecommunications systems. The EMF was disclosed on the Bank's website on May 9, 2012 and in-country on May 9, 2012.

**ANNEX 1: RESULTS FRAMEWORK AND MONITORING**

<b>Revisions to the Results Framework</b>		<b>Comments/ Rationale for Change</b>
<b>PDO</b>		
<i>Current (PAD)</i>	<i>Proposed</i>	
The project objective is to increase access to and reduce costs of telecommunications services in rural areas of Nicaragua	No Change	
<b>PDO indicators</b>		
<i>Current (PAD)</i>	<i>Proposed change*</i>	
Increase in the number of minutes of use of telephone service	Access to telephone services (fixed mainlines plus cellular phones per 100 people)	new indicator is listed as a Bank ICT Core Sector Indicator; new indicator will produce high quality and internationally comparable data
Increase in the number of hours of use of Internet access	Access to internet services (number of subscribers per 100 people)	new indicator is listed as a Bank ICT Core Sector Indicator; new indicator will produce high quality and internationally comparable data
Reduction in the average distance that residents in rural Nicaragua have to travel to the nearest public telephone	Dropped from PDO indicator and moved to intermediate results indicator	This indicator is better suited to measure intermediate results of the project
Reduction in the price of international calls due to increased competition	Retail price of internet services (per Mbit/s per Month, in US\$)	new indicator is listed as a Bank ICT Core Sector Indicator; new indicator will produce high quality and internationally comparable data
N/A	Project beneficiaries, of which female	Required indicator that was not included in current PAD
<b>Intermediate Results indicators</b>		
<i>Current (PAD)</i>	<i>Proposed change*</i>	
Number of Municipal Heads with Internet access	No change	
Number of towns with access to public phone	No change	
Increase in percentage of international traffic to/from the USA	Reduction in the average distance that residents in rural Nicaragua have to travel to the nearest public telephone	(moved from PDO indicator)
N/A	Number of e-Government and e-Commerce applications designed for the Caribbean Coast implemented	New indicator that would measure activities listed in component 2.



## REVISED PROJECT RESULTS FRAMEWORK

<b>Project Development Objective (PDO):</b>												
<i>The project objective is to increase access to and reduce costs of telecommunications services in rural areas of Nicaragua</i>												
PDO Level Results Indicators	Core	UOM <sup>10</sup>	Baseline Original Project Start (2007)	Progress To Date (2011)	Cumulative Target Values				Frequency	Data Source/ Methodology	Responsibility for Data Collection	Comments
					2012	2013	2014	2015				
1. Access to telephone services (fixed mainlines plus cellular phones per 100 people)	<input checked="" type="checkbox"/>	Number		71.5%	71.5%	78%	84%	90%	Yearly	TELCOR	PCU/TELCOR	TEICOR's Best estimates; based on data used in the sector
2. Access to internet services (number of subscribers per 100 people)	<input checked="" type="checkbox"/>	Number		4.0	4.04	4.1	4.2	4.3	Yearly	TELCOR	PCU/TELCOR	TEICOR's Best estimates; based on data used in the sector
4. Retail price of internet services (per Mbit/s per Month, in US\$)	<input checked="" type="checkbox"/>	Number		18	18	16	14	13	Yearly	TELCOR	PCU/TELCOR	TEICOR's Best estimates; based on data used in the sector
<b><u>Beneficiaries</u></b>												
Project beneficiaries,	<input checked="" type="checkbox"/>	Number ('000)		1,300	1,322	1,350	1,380	1,408	Yearly	TELCOR	PCU/TELCOR	TEICOR's Best estimates; based on data used in the sector
Of which female (beneficiaries)	<input checked="" type="checkbox"/>	Number ('000)		661	664	677	692	705	Yearly	TELCOR	PCU/TELCOR	TEICOR's Best estimates; based on data used in the sector

<sup>10</sup> UOM = Unit of Measurement.

### Intermediate Results and Indicators

Intermediate Results Indicators	Core	UOM	Baseline Original Project Start (200x)	Progress To Date (2011)	Target Values				Frequency	Data Source/ Methodology	Responsibility for Data Collection	Comments
					2012	2013	2014	2015				
<b>Intermediate Result 1: Rural Access</b>												
Number of towns with access to public phone	<input checked="" type="checkbox"/>	Number	347	575	600	655	710	765	Yearly	TELCOR	PCU/TELCOR	TELCOR's Best estimates; based on data used in the sector
Number of Municipal Heads with Internet access	<input checked="" type="checkbox"/>	Number	104	105	108	108	108	108	Yearly	TELCOR	PCU/TELCOR	TELCOR's Best estimates; based on data used in the sector
<b>Intermediate Result 2: Regulatory Capacity Strengthening and Technical Assistance to Communities</b>												
Reduction in the average distance that residents in rural Nicaragua have to travel to the nearest public telephone	<input checked="" type="checkbox"/>	Km	19	7.2	7.2	6.2	5.2	4.2	Yearly	TELCOR	PCU/TELCOR	TELCOR's Best estimates; based on data used in the sector
Number of e-Government and E-Commerce applications designed for the Caribbean Coast implemented	<input checked="" type="checkbox"/>	Number	0	0	0	1	4	4	Yearly	TELCOR	PCU/TELCOR	TELCOR's Best estimates; based on data used in the sector

**ANNEX 2-OPERATIONAL RISK ASSESSMENT FRAMEWORK (ORAF)**  
Nicaragua: Rural Telecommunications Project

<b>1. Project Stakeholder Risks</b>		<b>Rating</b>	<b>Moderate (M)</b>		
<p><b>Description:</b> <i>Resistance from beneficiaries.</i> There may be resistance from the communities to Project interventions that aim to expand telecommunications services in these areas.</p> <p><i>Resistance from Operators:</i> Opposition to ICT infrastructure open access strategy.</p>		<p><b>Risk Management:</b> Strong community outreach and communication activities will aim to build support for changes and this should be helped by improved service quality.</p> <p>Standard procurement processes for International Competitive Bidding (ICB) will be followed and subsidies will be limited to operators that are willing to build an open access and shared infrastructure. TELCOR will encourage shared infrastructure through the enforcement of existing regulatory instruments, which include mandatory interconnection for new telecom operators.</p>			
		<b>Resp:</b> Client	<b>Stage:</b> Imp	<b>Due Date :</b>	<b>Status:</b> ongoing
<b>2. Implementing Agency Risks (including fiduciary)</b>					
<b>2.1. Capacity</b>		<b>Rating:</b>	<b>Medium (M)</b>		
<p><b>Description:</b> Since 1998 TELCOR has been executing IDA financed projects (starting 2006 under the ongoing Rural Telecom Project). In this context, TELCOR is used to Bank processes/procedures. In addition, TELCOR has proven organizational capacity for executing and supervising the implementation (e.g. <i>Project Management; Technical expertise; Procurement; and Financial Management</i>,). There is small potential risk that may result from staff turnover which could lead to delays in Project preparation and implementation.</p> <p><i>Counterpart funding:</i> resources to implement project is not provided adequately or on a timely basis, which may lead to implementation delays.</p>		<p><b>Risk Management:</b> The current Implementation Agreement will be extended which includes a statement for TELCOR to keep its team adequately staffed and reporting directly to the Director of TELCOR.</p> <p>On procurement arrangements TELCOR would for: (i) goods, works and non-consulting services award contracts on the basis of International Competitive Bidding, National Competitive Bidding, Shopping and Direct Contracting; (ii) consultants' services award contracts on the basis of Quality and Cost-based Selection, Quality-Based Selection, Selection under a Fixed Budget, Least Cost Selection, Selection Based on the Consultants' Qualifications, Single Source Selection and, Procedures set forth in Section V of the Consultant Guidelines for the Selection of Individual Consultants, including single-source Selection for Individual Consultants.</p> <p>Additional trainings will be provided for new TELCOR staff (if any) to prepare them with the expertise needed to execute their responsibilities.</p> <p>Historically, TELCOR has provided counterpart funding as agreed. Furthermore, TELCOR has its own sources of funds and does not depend on Central Government budget designation. Further consensus will be built during appraisal and negotiations on the importance of</p>			

counterpart funding to guarantee project success.

**3. Project Risks**

**3.1. Design**

**Rating:** Moderate (M)

**Description:**

*Incorrect estimation of cost and technical feasibility:*  
Although the proposed AF is intended to scale-up activities done under the ongoing Project, the delivery business model will adapt to the challenges derived from the new areas benefiting. It is expected that technical solutions and operation models will vary from those used by operators in the original project. Therefore, weak technical knowledge of the consulting firm that would conduct the feasibility study may affect the ability to produce reliable cost estimates and quality technical specifications. This risk could critically affect implementation efforts and sustainability of the project.

**Risk Management :**

During preparation, the project team (client and Bank) will ensure selection of a consulting firm that has proven experience and expertise in preparing technical specifications for rural telecom. A qualified firm will also be selected for conducting the environmental and social assessment.

*Complex and costly monitoring/supervision efforts.*  
Project execution in previously isolated communities may lead to difficulties for the implementing agency to ensure day-to-day management as well as of data collection and aggregated reporting.

The project team will be in regular contact with local telecom operators to ensure the proposed specification and cost estimates are feasible for implementation and are sustainable in the long run.

*Lack of e-government interoperability:* a bottom-up approach in implementing e-government applications and services may cause interoperability issues at the national level.

TELCOR is a core member of the “*Steering Committee on Electronic Government of Nicaragua*” (GobeNic), which is currently preparing an updated action plan for improving inter-institutional communication. The updated plan is expected to include Interoperability Standards and Standards for Government Portals. The action plan is expected to be issued in 2012.

**Resp:** Client/Bank      **Stage:** Imp      **Due Date :**      **Status:** Ongoing

**3.2. Social & Environmental**

**Rating:** Moderate (M)

**Description:** The proposed installation of telecommunications infrastructure will trigger OP 4.04 on Natural Habitats, OP 4.11 on Physical Cultural

**Risk Management:**

It is expected that the environmental impact can be mitigated by avoiding or minimizing damage to natural habitats to the extent feasible and by including mitigation measures when and

<p>Resources, OP4.10 on Indigenous Peoples and OP 4.12 on Involuntary Resettlement. (The scope of the project will include Biological Reserves of Indio Maíz and the Bosawás Biosphere Reserve, and indigenous and Afro-Nicaraguan peoples living in these areas will benefit from the project activities, more specifically <i>Miskito</i> and the <i>Garifuna</i> along the Caribbean Coast and the <i>Rama</i> in Río San Juan). The potential installation of telecommunications infrastructure may entail environmental impact associated with the construction of access roads for installation of cell towers. Installation of telecom infrastructure and tele-centers may also pose a risk on traditional culture and practices of indigenous peoples.</p>	<p>where necessary in compliance with environmental regulations.</p> <p>The design approach will follow telecommunications infrastructure standards based on best engineering and sound environmental and social management practices. It is expected that the environmental impact that can be mitigated by avoiding or minimizing damage to natural habitats to the extent feasible and by including mitigation measures when and where necessary ensuring in compliance with environmental regulations. Further, preparation of specific safeguards studies, including consultations with Indigenous Peoples and preparation of an Environmental Management Framework (EMF), Indigenous Peoples Planning Framework (IPPF) and Resettlement Policy Framework (RPF) was completed prior to appraisal. The IPPF will assist the executing agencies to determine whether indigenous peoples are present in any of the sub-project areas, and if so, to ensure that the interested communities support the proposed activities as well as any additional measures required to maximize their culturally appropriate benefits and/or avoid potentially adverse impacts. The RPF outlines the principles and procedures for possible resettlement and/or compensation of subproject-affected people, and establishes standards for identifying, assessing and mitigating negative impacts of program supported activities. Safeguards will be closely monitored and evaluated during implementation.</p>			
<p><b>3.3. Program &amp; Donor</b></p>	<p><b>Resp:</b> Client</p>	<p><b>Stage:</b> Prep</p>	<p><b>Due Date :</b></p>	<p><b>Status:</b> ongoing</p>
<p><b>Description:</b> team seeking to continue its collaboration with the Government of Finland and does not envisage formal partnership arrangements with any other international financing agencies under the AF.</p>	<p><b>Rating:</b> Low (L)</p>			
<p><b>3.4. Delivery Monitoring &amp; Sustainability</b></p>	<p><b>Risk Management:</b></p>			
<p><b>Description:</b>  <i>Sustainability:</i> On-going maintenance of telecom infrastructure may be difficult in areas where roads are not readily available.   <i>Lack of sufficient data collection and analytical capacity:</i> Data reporting from the PCU has been relatively limited to date due to difficulties obtaining reliable information from the telecom operator.</p>	<p><b>Resp:</b> Client/Bank</p>	<p><b>Stage:</b></p>	<p><b>Due Date :</b></p>	<p><b>Status:</b> ongoing</p>
<p><b>Overall Implementation Risk</b></p>	<p><b>Rating:</b> Low (L)</p>			
<p><b>Description:</b>  <i>Sustainability:</i> On-going maintenance of telecom infrastructure may be difficult in areas where roads are not readily available.   <i>Lack of sufficient data collection and analytical capacity:</i> Data reporting from the PCU has been relatively limited to date due to difficulties obtaining reliable information from the telecom operator.</p>	<p><b>Risk Management:</b>  <b>A technical feasibility</b> study was carried-out during project preparation and additional due diligence has adequately identified expected levels of sustainability of the new infrastructure, and address any concerns for ensuring sustainability including recommendations on how they can be mitigated.   The preparation for additional financing entailed restructuring of key outcome indicators to capture and monitor progress toward PDO.</p>			
<p><b>Overall Implementation Risk</b></p>	<p><b>Rating:</b> Moderate (M)</p>			

### ANNEX 3: PROCUREMENT SPECIAL PROVISION AND PROCUREMENT PLAN

#### 1. Procurement Special Provisions

In addition and without limitation to any other provisions set forth in this Section, the Procurement Guidelines or the Consultant Guidelines, the following principles of procurement shall expressly govern all procurement of works, goods, non-consulting services or consultants' services, as the case may be:

- (a) Foreign bidders shall not be required to be registered with local authorities as a prerequisite for bidding.
- (b) No bids shall be rejected, and no provisional awards shall be made at the time of bid opening.
- (c) The invitation to bid shall not establish, for purposes of acceptance of bids, minimum or maximum amounts for the contract prices.
- (d) The invitation to bid shall not publish the estimated cost of the contract.
- (e) In the case of Shopping, a minimum of three quotations shall be obtained as a condition to award the contract.
- (f) Unless the Association may otherwise agree, for the procurement of goods and non-consultant services, the "best offer" shall be the one submitted by the Bidder whose offer was determined to be the lowest evaluated bid and was found substantially responsive to the Bidding Document, provided further that the Bidder was determined to be qualified to perform the Contract satisfactorily.
- (g) Bidders and Consultants shall not be allowed to review or make copies of other bidder's bids or consultants' proposals, as the case may be. Likewise, bidders' and consultants' responses to requests of clarifications made by the procuring entity during the bidding process shall not be disclosed to other bidders or consultants, as the case may be. Finally, reports including recommendations for award shall not be shared with bidders and consultants prior to their publication.
- (h) Eligibility criteria shall be the one defined in Section I of the Procurement and Consultant Guidelines. Articles 17 and 18 of Law 737 shall not apply.
- (i) Automatic rejection of bids or proposals, as the case may be, due to differences between bid or proposal prices and cost estimates being higher than predetermined percentages, shall not be allowed.
- (j) Bidders shall have the possibility of procuring hard copies of bidding documents even if they are published on the procurement portal.
- (k) Unless so indicated in the applicable Bank Standard Bidding Documents, pre-bid conferences shall not be conducted.
- (l) Bid preparation terms shall not be reduced as a result of re-bidding.
- (m) Consultants shall not be requested to submit bid and performance securities.
- (n) Complaints shall be handled as indicated in the appendixes to the Procurement and Consultant Guidelines. Articles 110 to 116 of Law 737 shall apply in a subsidiary manner.
- (o) Procurement plans shall be processed through SEPA.

(p) SISCAE publication requirements will be followed.

## 2. Sample Procurement Plan

### I. General

1. Bank's approval Date of the procurement Plan: **May 3, 2012**
2. Date of General Procurement Notice: **Third quarter 2012**
3. Period covered by this procurement plan: **Three years**

### II. Goods and Works and non-consulting services.

1. **Prior Review Threshold:** Procurement Decisions subject to Prior Review by the Bank as stated in Appendix 1 to the Guidelines for Procurement:

	<b>Procurement Method</b>	<b>Contract Value (Thresholds) US \$</b>	<b>Contracts Subject to Prior Review</b>
1.	ICB (Goods and Non-Consultant Services)	> US\$ 150,000	All
2.	NCB (Goods and Non-Consultant Services)	US\$ 50,000 - US\$ 150,000	First contract
3.	Shopping (Goods and Non-Consultant Services)	<US\$ 50,000	First contract

2. **Reference to (if any) Project Operational/Procurement Manual:** Project Implementation Manual for World Bank Loan Project P089989 Rural Telecommunications Project issued by PCU/TELCOR.

### 3. Principal contracts of Goods and Non-Consultants Services

<b>1</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>Ref. No.</b>	<b>Description</b>	<b>Estimated Cost US\$ million</b>	<b>Domestic Preference (yes/no)</b>	<b>Review by Bank (Prior / Post)</b>	<b>Comments</b>
1.	ICB - Broadband Services (Costa Caribe, Rio San Juan)*	2.00	No	Prior	Non-Consultant Services
2.	ICB -Equipment and furniture (Telecentros RAAN, RASS, Rio San Juan)	0.45	No	Prior	Goods
3.	ICB - Data Center equipment (Bluefields)	0.50	No	Prior	Goods
4.	NCB - Adquisición medios de transporte	0.06	No	Prior	Goods
5.	NCB - Telephones	0.05	No	Post	Goods
6.	NCB – Equipments (subsidies)	0.10	No	Post	Goods
7.	Shopping -Furniture	0.01	No	Prior	Goods

8.	Shopping - Equipment for supervisión	0.03	No	Post	Goods
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*Note: Competitive award using an output-based aid (OBA) tender process to private-sector operators that would be responsible for installing, operating, and maintaining the new telecommunications systems.*

### **III. Selection of Consultants**

**Prior Review Threshold:** Selection decisions subject to Prior Review by Bank as stated in Appendix 1 to the Guidelines Selection and Employment of Consultants:

	<b>Selection Method</b>	<b>Prior Review Threshold</b>
1.	QCBS, QBS, FBS, LCS, CQS	Above US\$ 200,000
2.	Single Source (Firms)	All
3.	Individual	Above US\$ 50,000

**Short list comprising entirely of national consultants:** Short list of consultants for services, estimated to cost less than \$200,000 equivalent per contract, may comprise entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

### **Consultancy Assignments with Selection Methods and Time Schedule**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Ref. No.</b>	<b>Description of Assignment</b>	<b>Estimated Cost US\$ million</b>	<b>Packages</b>	<b>Review by Bank (Prior / Post)</b>	<b>Comments</b>
1.	Applications	0.4	NA	Prior	QCBS
2.	Feasibility study for a new project (TIC)	0.2	NA	Post	QCBS
3.	Legal framework	0.1	NA	Prior	QCBS
4.	Audits	0.045	NA	Prior	LCS
5.	Individual consultants	0.847	NA	NA	