

TECHNICAL COOPERATION DOCUMENT (TC DOCUMENT)

I. BASIC PROJECT DATA

Country: Regional - Caribbean
TC name: Harmonized Caribbean Spectrum Planning and Management
TC number: RG-T2272
Team Leader/Members: Antonio García Zaballos (Team Leader, IFD/CTI); Mathew Stone Shearer (INT/INT); Jiyouon Son (IFD/CTI); Nathalia Foditsch (IFD/CTI); Felix González (IFD/CTI); Guillermo Eschoyez (LEG/SGO); Dale James (CCB/CTT); and Cecilia Bernedo (IFD/CTI).
TC Abstract authorization: March 11, 2013
Operation type: Client Support
Reference to request: [IDBDocs#37431905](#)
Beneficiary: Barbados, Belize, Guyana, Haiti, Jamaica, Suriname, Trinidad and Tobago, and Dominican Republic.
Executing Agency and contact name: Caribbean Telecommunications Union (CTU), Mrs. Bernadette Lewis (Bernadette.Lewis@ctu.int) and Mr. Nigel Cassimire (Nigel.Cassimire@CTU.int).
IDB funding: Regional Infrastructure Integration Fund (MFR)
Financing plan: IDB: US\$1,000,000
Local: US\$ 88,000
Total: US\$1,088,000
Required start date: May 1, 2013
Execution period: 18 months Disbursement period: 24 months
Technical Unit: IFD/CTI Disbursement Unit: COF/CTT
Type of consultancy: Individual Consultants, Firm
Included in Country Yes []
Strategy/included in CPD: No [X]
GCI-9 Sector priority: Strategic subtheme in the current Sector Strategies: “Support Competitive Global & Regional Integration” (GN-2565-4); and “Institutions for Growth and Social Welfare” (GN-2587-2).

II. OBJECTIVE AND JUSTIFICATION

- 2.1 The objective of this Technical Cooperation (TC) is to deepen the harmonization of spectrum planning and management policies and practices across the Caribbean Region, including in areas such as white spaces and frequency reutilization.
- 2.2 As the digital economy evolves and continues to impact all levels of society, individuals, governments and businesses increasingly rely on the efficient flow of information and services through the use of innovative Information and Communication Technologies (ICTs), particularly those available through high speed broadband Internet. However, the participation of Caribbean countries in the digital economy is hampered by the low levels of fixed and mobile broadband Internet penetration. According to recent statistics², the penetration rate of fixed broadband services in the Caribbean Region is diverse, and ranges from less than 2% in Guyana and 11% in Trinidad and Tobago to 21% in Barbados. In terms of mobile broadband, although penetration is still low in the Caribbean and in most developing countries—with a penetration of 8% in developing countries versus 51.3% in developed countries—the fact that

¹ It is a regional project.

² ICT World Indicators 2011. International Telecommunication Union (ITU), 2012.

the cellular mobile penetration rate is above 60% throughout the Region provides great potential to accelerate the penetration rate and usage of mobile broadband services in the Caribbean.

- 2.3 Yet, in order to effectively expand broadband through mobile services, special attention must be paid to efficient spectrum management³, which has proven to be challenging. In most Caribbean countries, the pace of policy development and legislative and regulatory reform have not kept pace with the rapid evolution in wireless technologies; as a result, the traditional methods for spectrum management have become impractical and inefficient and could become a barrier to entry for prospective investors⁴.
- 2.4 Efficient spectrum management depends to a large extent on following international standards. The International Telecommunication Union (ITU), the organization responsible for establishing the International Radio Regulations, divides the world into three different regions for the purpose of managing the global radio spectrum. All Caribbean countries belong to region 2, covering all the Americas. Thus, all countries in the Americas, either from the south, central or north should follow the same harmonization guidelines.
- 2.5 Caribbean countries have recognized this challenge of managing the spectrum effectively and with the support of the Caribbean Telecommunications Union (CTU)⁵, have implemented the first phase of the “Caribbean Spectrum Planning and Management Project”, within which the “Caribbean Spectrum Management Task Force” was created, having been active between 2005 and 2008⁶. Among other outputs, the Project assessed the status quo of the spectrum management in the Region, and provided specific policy objectives and prescriptions for the creation, maintenance and governance of a regionally standardized spectrum usage in the Caribbean. The result of the assessment is the document named “Caribbean Spectrum Management Policy Framework”, which comprised the following recommendations:
 - (i) the compliance with the spectrum allocation requirements of ITU Region 2;
 - (ii) the development of an indicative frequency allocation table, consistent with the ITU Region 2;
 - (iii) the establishment of bilateral and multilateral initiatives to minimize frequency conflicts between neighboring Caribbean states;
 - (iv) the adoption of regional standards and procedures; and
 - (v) the adoption of common frequencies and relevant international protocols for disaster management and emergency communications.
- 2.6 In order to start implementing the recommendations made in the “Caribbean Spectrum Management Policy Framework”, as well as starting the Caribbean Spectrum Management Task Force over, the Caribbean countries requested in January 2013 the support of the Bank. In

³ Spectrum management is the combination of administrative and technical procedures necessary to ensure the efficient utilization of the radio-frequency spectrum by all radio communication services, without causing harmful interference. ITU-R Study Group booklet. Radiocommunication Bureau of the International Telecommunication Union (ITU). June 2010: http://www.itu.int/dms_pub/itu-r/oth/0A/0E/R0A0E0000010001PDFE.pdf.

⁴ Caribbean Spectrum Management Policy Framework. Caribbean Telecommunications Union (CTU). October, 2007: http://www.ctu.int/attachments/033_Caribbean%20Spectrum%20Management%20Policy%20Framework.pdf.

⁵ The Caribbean Telecommunications Union (CTU), is a multi-stakeholder intergovernmental organization dedicated to facilitating the development of the regional telecommunications sector, with headquarters in Port of Spain, Trinidad and Tobago. It was established in 1989, by the heads of Caribbean Governments with the aim of: (i) rationalizing the telecommunications policy framework in the Caribbean; (ii) coordinating and harmonizing approaches to telecommunications development; and (iii) promoting awareness of telecommunication technologies in the region. The CTU is comprised of Caribbean countries, private sector organizations and civil society. For more information check: http://www.ctu.int/attachments/001_CTU%20Brochure.pdf.

⁶ The first phase of the Caribbean Spectrum Planning and Management Project was funded initially through the European Union’s PROINVEST Fund and then more significantly by the Canadian International Development Agency (CIDA). Through these sources CTU was able to fund meetings of the Task Force and Steering Committee, consultancies for spectrum audits in seven Caribbean countries as well as various capacity building programmes and events. The CIDA funding eventually expired in 2010 but the CTU Secretariat did not have the resources to continue activities in the same way.

effect, all the recommendations are still needed, as constraints in the Region for efficient spectrum management persist. It is important to highlight that the present technical cooperation aims at supporting CTU to its efforts in building upon the previous work that was done by the aforementioned Task Force.

- 2.7 As innovations such as white spaces (allocated, but unused frequency bands) and frequency reutilization⁷ pose additional challenges, there is a need for Caribbean nations to continue to cooperate in this area. Moreover, furthering cooperation will not only promote regional synergy and integration in the telecommunications sector, but is also critical for operative reasons as the use of radio frequency spectrum transcends national boundaries.
- 2.8 The harmonization of spectrum planning and management policies and practices in the Caribbean Region is expected to create enormous benefits in terms of social impact and increased productivity. Specifically, considering its potential to promote the penetration of mobile broadband services at lower costs, efficient and harmonized spectrum management will further the Region's insertion in the digital economy.
- 2.9 Allocating frequencies consistently across borders enables regional roaming, interoperability and regional markets for telecom equipment. Some of the main benefits of such harmonization are more affordable products and services and faster growth of the wireless market. This happens, among other reasons, since the economies of scale created with the standardization lowers equipment production costs and increases the penetration rates for mobile services. Moreover, competition is fostered in a more attractive market, incentivizing companies to launch more and cheaper products. Lastly, the harmonization provides other diffuse benefits, such as the adoption of common frequencies and relevant international protocols for disaster management and emergency communications.
- 2.10 The project is also timely considering that the digital switchover—the transition from analogue to digital broadcasting— has largely not yet materialized in the Caribbean. There is therefore a window of opportunity to promote the efficient use of the digital dividend⁸ by supporting the spectrum harmonization process in the Region, especially in the 700 MHz band. In particular, end users will benefit from lower costs as mobile operators are able to address larger markets, leading to economies of scale for service provision.
- 2.11 Furthermore, the project is aligned with a major strategy of the Bank. The Broadband Special Program is an Initiative within the IDB that was recently approved by the Board of Governors and will to be funded with resources from the Ordinary Capital (OC) of the Bank; and from the Broadband Multi-Donor Fund. This Special Program encompasses all countries in LAC. Thus, Caribbean countries will also be benefited from this strategic approach of the Bank to Broadband.
- 2.12 Although the Country Strategies (CS)⁹ of Barbados, Belize, Guyana, Jamaica, Suriname, Trinidad and Tobago, and Dominican Republic do not explicitly mention spectrum management and regulation as a priority, it is an issue that is in every single telecommunications' agenda in the countries. Moreover, the Public Private Partnerships (PPPs), which appear as a focus of most CSs, are also frequently used as a tool for Broadband development in countries. Besides that, broadband access is an issue that permeates almost all the priorities that could possibly be chosen in the CS, since it is crucial for the development of

⁷ The Bank is currently supporting the preparation of a knowledge product in this area "Regulatory implications of white spaces and the analogue switch over". ESW, expected 2013.

⁸ The term "digital dividend" refers to the frequency bands that are freed up as a result of the transition from analogue to digital television. This process makes a large area of bands between 50 MHz and 700 MHz available, since the digital channels use less spectrum in comparison to the analogue channels.

⁹ The country strategies are available at <http://sec.iadb.org/Site/Documents/CountryStrategies.aspx>

the public and private sectors of any country, as well as a major factor for regional integration. In fact, providing access to broadband is one of the most powerful ways to help the private sector become more productive, foster competition and bring their product to the markets, and this is a priority for all countries in the region.

- 2.13 Lastly, the use of spectrum in the provision of Broadband is a tool to guarantee the principles of universality and affordability. Fostering the development of a regulatory framework, thus, has positive spillovers for all countries in the Region. As per explained above, all countries in the Caribbean belong to ITU's Region 2, which covers all the Americas. For this reason, even the countries that are not beneficiaries of this TC will also profit from it, since they would be able to follow the guidelines, management policies and practices established by the regional framework.
- 2.14 This would be the first TC of the IDB related to spectrum management. However, similar operations are being designed and implemented for other countries and regions. An example is ATN/OC-12880-RG (RG-T2014), which is trying to promote broadband as a regional public good in Central America, as well as ATN/KK-13701-RG (RG-T2242), which intends to advance broadband feasibility studies as a critical input to extend broadband penetration rates in participating Central American countries. Within the Caribbean, there is a ATN/OC-13544-RG (RG-T2212), aiming at creating an inventory of the broadband infrastructure as well as at raising the public awareness on the topic in the Caribbean Region. The expertise developed in such regional TCs provides valuable inputs in terms of design and implementation for the present cooperation.

III. DESCRIPTION OF ACTIVITIES

- 3.1 A Regional Framework to address the most important challenges related to spectrum management and planning and the establishment of a regional Spectrum Management Steering Committee and Task Force are catalysts for important socioeconomic and efficiency benefits for the Caribbean due to the aforementioned reasons. Below are the activities comprised in this framework:
- 3.2 **Activity 1 – Reconstitution of governing bodies.** Reconstitution of the Caribbean spectrum Management Steering Committee and Task Force comprised by representatives from governments (policy and law makers) and from the private sector (telecommunications providers, business associations, banks, etc.). This activity comprises (i) the liaison with Caribbean Spectrum Management Committee and Task Force, and ensuring that the communication and cooperation among the participants and stakeholders is clear and effective; (ii) the organization and preparation of meetings; (iii) the preparation of documents, such as minutes of meetings and drafts of reports; as well as (iv) the preparation of the by-laws of the bodies in reference.
- 3.3 **Activity 2 – Design of mechanisms to provide sustainability to the governing bodies.** Development of a study on possible funding mechanisms aiming at the sustainability of the Caribbean Spectrum Management Steering Committee and Task Force. The study might assess public and private funding solutions as well as possible public-private partnerships.
- 3.4 **Activity 3 – Frequency band analysis.** Assessment and evaluation of current national frequency band plans. Development of the National Frequency Allocation Table (NFAT) for each country through the undertaking of surveys and the collection of frequency usage information.
- 3.5 **Activity 4 – Development of a strategic regional spectrum management plan.** Development of a regional plan with regionally harmonized recommendations. This activity comprises the

development of: (i) a framework to minimize cross border interference between beneficiary countries; (ii) harmonized technical and policy approaches for the digital switchover; (iii) a proposal for white spaces management and regulation; and (iv) an assessment of common pricing principles and methods for determining pricing values. This activity comprises consultations with stakeholders and the Spectrum Management Steering Committee and Task Force.

3.6 Activity 5 – Frequency band proposal. Development of the NFAT for each country through the undertaking of surveys and the collection and collation of frequency usage information and development of a Regional Frequency Allocation Table (RFAT) for the Caribbean. This would also facilitate the adoption of common frequencies and relevant international protocols for disaster management and emergency communications.

3.7 Expected results: As a result of this project, beneficiary countries will have the necessary information and tools to deepen the harmonization of spectrum planning and management policies and practices across the Caribbean Region. The regulatory and procedural changes will ultimately result in cost reductions for mobile broadband services, thereby promoting the population's adoption and usage of broadband and the Region's advancement in the digital economy.

Table 3.1: Indicative results matrix

Results Statement		Indicator	Baseline	Data Source		
				Yr1	Yr2	
Intermediate outcome	Improved and regionally harmonized regulatory and procedural frameworks.	Indicator 1: Number of countries which have accepted the recommendations of the agreed spectrum management plan	0		8	Acceptance by the CTU’s General Conference of Ministers.
		Indicator 2: Functioning and sustainable Spectrum Management Steering Committee and Task Force	0		8	Approved by-laws with provision of funding mechanisms of the Spectrum Management Steering Committee and Task Force.
Immediate outcome	Prioritized national-level actions to streamline, harmonize, and/or improve regulations and procedures in telecommunications, especially related to broadband.	Indicator 1: Number of countries endorsing the strategic and implementation plan for spectrum management and committing to follow-up actions.	0		8	Documentation from Working Group Meetings.
		Indicator 3: No. of countries endorsing a harmonized regional frequency allocation table and committing to implementing compliant national FATs	0		8	Approved resolution of the CTU Executive Council and General Conference of Ministers
Output 1. Reconstitution of Spectrum Management Steering Committee and Task Force		Number of bodies reconstituted	0	2	0	
Output 2. Study on possible funding mechanisms		Number of studies developed	0	1	0	
Output 3 A National Frequency Allocation Table (NFAT) for each country and a Regional Frequency Allocation Table (RFAT) for the Caribbean		Number of tables developed.	0	8	1	Project files collected by IFD/CTI.
Output 4. Strategic Regional Spectrum Management Plan, prepared to ensure regional regulatory harmonization taking into account specific national circumstances and requirements.		Number of the following frameworks developed: (i) mitigation of interference problems; (ii) harmonized technical and policy approaches for the digital switchover; (iii) harmonized regional frequency allocation table; (iv) spectrum pricing policy; and (v) proposal for white spaces management and regulation.	0	3	2	Project files collected by IFD/CTI.
Activity 1 Establish: (i) regional Management Steering Committee; and (ii) Spectrum Management Task Force		Number of meetings held	0	2	2	Project files collected by IFD/CTI.

Results Statement	Indicator	Baseline	Data Source		
			Yr1	Yr2	
Activity 2 Study on possible funding mechanisms	See output 2	0	1	2	Minutes of facilitation collected by IFD/CTI.
Activity 3 Frequency Band Analysis	Number of frequency plans analyzed (one per country)	0	8	0	
Activity 4 Development of a Strategic Regional Spectrum Management Plan	Number of consultations with stakeholders and the Spectrum Management Steering Committee and Task Force. See Output 4 above.	2	4	2	Project files collected by IFD/CTI.
Activity 5 Frequency Band Proposal.	See Output 3 above.				

Table 4.2: Indicative Budget

Activity/Component	Description	IDB/Fund Funding	Local Funding (in-kind)	Total Funding
Activity 1	Reconstitution of Spectrum Management Steering Committee and Task Force Steering Committee	100,000	10,000	110,000
Activity 2	Study on possible funding mechanisms	20,000	10,000	30,000
Activity 3 and 5	Harmonized RFAT for the Caribbean	240,000	16,000	256,000
Activity 4	Regional Spectrum Strategic Plan	400,000	10,000	430,000
Activities 1, 2, 3, 4 & 5	Travel (consultants)	30,000	-	30,000
Activities 1, 2, 3, 4 & 5	Regional workshops	110,000	10,000	120,000
Activities 3, 4 & 5	Editing and printing	10,000	2,000	12,000
Activities 1, 2, 3, 4 & 5	Program Manager, Administrative support & External Audit ¹⁰ and Final Evaluation ¹¹	90,000	30,000	100,000
Activities 1, 2, 3, 4 & 5	Total	1,000,000	88,000-	1,088,000

IV. EXECUTING AGENCY AND EXECUTION STRUCTURE

- 4.1 The proposal for “Harmonized Caribbean Spectrum Planning and Management” draws on the experience and involvement in the region of CTU¹², who will be executing this operation with the supervision of the Bank. The roles of both organizations will be complementary, thus ensuring a successful implementation and completion of the project.
- 4.2 The CTU’s members include governments, operators, regulators, members of the academic fraternity, and other telecommunications stakeholders. The nature of the CTU’s work requires regional approaches which cause the Secretariat to visit and engage each member country in its work, so that all CTU members benefit from its programs. The CTU also facilitates remote participation in its activities and conducts on-line courses to ensure the widest possible participation by members and Stakeholders.
- 4.3 The CTU Secretariat possesses significant expertise in telecommunications and has a network of experts that contributes to the discussion and the work conducted in the CTU. In addition to the technical staff, the CTU Secretariat has an Administrative Officer, Contract Administrator

¹⁰ This amount entails the external audit costs, which are mandatory since the project is going to be executed by an external entity. Moreover, the amount for Administrative Support and External Audit would ensure that the Secretariat can procure resources to support this project work since its internal resources can be oversubscribed with other existing and upcoming commitments of similar priority. The expenses under Activity 1 would apply directly to convening meetings of the Task Force and Steering Committee e.g. venue, facilities, travel, per diem, and consumables.

¹¹ A final evaluation is going to be undertaken by the IDB, but no additional budgetary provision is necessary for this purpose.

¹² See footnote #5 for more information about Caribbean Telecommunication Union (CTU).

and other available technical, administrative and event management support which enables work to be undertaken in any of the countries covered by this TC.

- 4.4 An audit of the TC will be made by an external firm in the end of the project. Moreover, the IDB will make an internal assessment of the final products of this technical cooperation according to the operational guidelines for technical cooperation products (GB-2629-1). Lastly, it is important to highlight that the procurement of goods and services (consulting and non-consulting services) will be undertaken in accordance with the procurement policies of the Bank (Documents GN-2349-9 and GN-2350-9), as well as the financial management of the contribution, which will follow the financial management policy of the Bank (OP-273-2).

V. PROJECT RISKS AND ISSUES

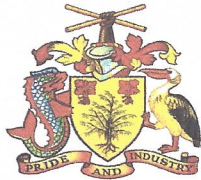
- 5.1 The major risk of this project is that, not all Caribbean countries are part of the proposed spectrum harmonization; the impact of the results will be more limited. Notwithstanding, the Caribbean countries that are not part of this project might benefit from it in the future, and will be able to harmonize their spectrum bands according to the RFAT. Members that do not apply the knowledge and guidelines developed through this project might miss an important opportunity for development. The influence on policy that this project might have is thus limited. In order to maximize the ability to influence future outcomes, the members of the Caribbean Spectrum Management Steering Committee and Task Force will be chosen among leaders that are able to influence policy in their respective countries. Moreover, another risk is that steering committees at a regional level can protract decision making which in turn delays execution. CTU will make sure to have efficient selection and deliberation procedures so that this potential problem is mitigated. Lastly, in order to avoid that these governance bodies are dismantled after the IDB funding ends, this project will assess possible funding mechanisms and establishment of partnerships in order to make the aforementioned bodies sustainable.

VI. ENVIRONMENTAL AND SOCIAL CLASSIFICATION

- 6.1 Due to the nature of this TC, there are no expected environmental and social risks associated with the implementation of the project. The operation was classified as Category “C”, according to the Bank’s classification toolkit (see link: [IDBDocs#37434558](#)).

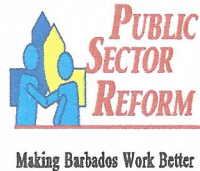
Annexes:

- **Annex I: Government Request Letter**
- **Annex II: Terms of Reference (ToR)**
- **Annex III: Procurement Plan**



**GOVERNMENT OF BARBADOS
(INVESTMENT DIVISION)
MINISTRY OF FINANCE AND ENERGY**

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OUR REF: 7096/00 T1 Vol. 44

January 29, 2013

Mr. Antoni Estevadeordal
Manager
Integration and Trade
Inter-American Development Bank
1300 New York Av. Stop W0610
Washington, DC 20577
UNITED STATES OF AMERICA

Dear Mr. Estevadeordal,

This to advise that the Division of Energy and Telecommunications of the Prime Minister's Office of Barbados (the Division) is committed to supporting and participating in implementing the regional project "Caribbean Spectrum Planning and Management Phase II," as indicated in the attached proposal for funding under the Inter-American Development Bank's (IDB) Initiative for the Promotion of Regional Public Goods. We have no objection to the IDB providing the resources needed to undertake the project or to the Caribbean Telecommunications Union (CTU) becoming the executing agency.

The Regional Public Good that the proposal is seeking to promote (that is, optimised and interference-free usage of spectrum in the Caribbean) is expected to improve competitiveness and productivity of the country and increase penetration of ICTs in other sectors of the economy. The project would also enable an analysis of the existing regulatory framework, particularly related to wireless communications and broadcasting, in order to make changes or new legislation that encourages investment and innovation.

These issues are priorities for our country and therefore, in order to implement this project, the Division will support the CTU's coordination efforts and make a contribution of in-kind resources towards meeting, in part, the budgeted equivalent of US \$88,000. This contribution will help facilitate:-

- (i) gathering information to develop models that allow for an analysis of spectrum usage in the country;
- (ii) supporting the analysis of the existing regulatory framework associated with the planning and management of spectrum; and

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- 2 -

Mr. Antoni Estevadeordal
Manager
Integration and Trade
Inter-American Development Bank

January 29, 2013

(iii) supervision of the consultancy work and conclusions delivered.

This organization is committed to the success of the project and to continue promoting and supporting the development of the Regional Public Good through the appropriate activities and plans of action developed to realise the desired outcomes.

Yours sincerely,



J. THORINGTON-POWLETT (MRS.)
Permanent Secretary
(Investment)

Copied to: Ms. Valerie Browne, Permanent Secretary,
Energy and Telecommunications, Prime Minister's Office
Flora Painter Montealegre, Chief of the Competition and
Innovation Division, Washington, D.C.
Antonio García Zaballos, Telecommunications Lead Specialist,
Washington, D.C.
Bernadette Lewis, Secretary General,
Caribbean Telecommunications Union

JT-P/sr



CARIBBEAN TELECOMMUNICATIONS UNION

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28th December, 2012

Senator the Hon. Darcy Boyce
Minister in the Office of the Prime Minister
Ministry of Energy, Immigration,
Telecommunications and Invest Barbados
Government Headquarters
Bay Street
St. Michael
BARBADOS

Dear Minister,

Certification of Support for the Harmonised Caribbean Spectrum Planning and Management Project – Phase II

In order to facilitate our application for development funding from the Inter-American Development Bank (IDB), the Caribbean Telecommunications Union (CTU) is requesting your cooperation in certifying your administration's support of our Caribbean Spectrum Planning and Management Project Phase II of which your country is a beneficiary, by issuing a letter in the attached format to your local IDB representative.

Over the period 2006 to 2010, through the financial support of the European Union and the Canadian International Development Agency, the CTU successfully managed the initial phase of this project which was the first comprehensive regional initiative to address harmonised approaches to spectrum management. The establishment of the Caribbean Spectrum Management Steering Committee and Task Force under the project directed many activities which were beneficial to Caribbean spectrum stakeholders including:

- Production of the Caribbean Spectrum Management Policy Framework
- Field audits of spectrum management processes in 7 Caribbean countries and a report with recommendations to guide spectrum management practices in CTU Member States
- Multiple capacity-building programmes, both face-to-face and on-line, in national spectrum management and spectrum pricing
- Initial work to harmonise spectrum allocations and band planning

In 2011 the CTU commenced a second phase of work to build capacity and develop harmonised policies in the region for efficient and effective spectrum management. While the CTU has been advancing the work in digital broadcasting switchover, the financial support of the IDB would enable us to accelerate the implementation of the full range of activities specified by the Task Force. The planned activities and outputs for Phase II are provided in the attached IDB-formatted project proposal.

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I am requesting your prompt action in issuing the attached letter of support. As a beneficiary, your administration is being asked to contribute modestly in kind to the implementation of the project in your country.

Please contact either Mr. Nigel Cassimire (Nigel.Cassimire@ctu.int) or myself if you require any further clarification.

I look forward to and depend on your full support of this initiative.

Sincerely,

Bernadette Lewis
SECRETARY GENERAL

cc: Ms. Valerie Browne, Permanent Secretary
Mr. Reginald Bourne, Chief Telecommunications Officer



Planned Activities

- Reconvening the multi-stakeholder Caribbean Spectrum Management Steering Committee and Caribbean Spectrum Management Task Force
- Digital Switch Over
- Updating the Spectrum Management Policy Framework to, inter alia, formalise harmonised policy for disaster communications
- Developing a framework for mitigation and resolution of inter-territorial interference issues
- Completing additional spectrum management audits and reports as appropriate
- Developing a Caribbean spectrum pricing policy framework
- Completing a Caribbean indicative table of spectrum allocations
- Continuing regional capacity-building initiatives in spectrum management.

Draft TC ABSTRACT

I. Basic project data

▪ Country/Region:	Caribbean
▪ TC Name:	Harmonized Caribbean Spectrum Planning and Management
▪ TC Number:	TBD
▪ Team Leader/Members:	Antonio García Zaballos (Team Leader, IFD/CTI); Mathew Stone Shearer (INT/INT); Ruben Lopez-Rivas (Consultant); Claudia Salazar (Consultant) and Cecilia Bernedo (IFD/CTI)
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination.	Client Support
▪ If Operational Support TC, give number and name of Operation Supported by the TC:	TBD
▪ Reference to Request ¹ : (IDB docs #)	TBD
▪ Date of TC Abstract:	11/15/2012
▪ Beneficiary (countries or entities which are the recipient of the technical assistance):	Barbados, Belize, Dominican Republic, Guyana, Haiti, Jamaica, Suriname and Trinidad & Tobago
▪ Executing Agency and contact name	Caribbean Telecommunications Union (CTU)
▪ IDB Funding Requested:	IDB (RIIF)
▪ Local counterpart funding, if any:	None
▪ Disbursement period (which includes execution period):	18 months
▪ Required start date:	1/1/2013
▪ Types of consultants (firm or individual consultants):	Individual consultants, Consulting firm
▪ Prepared by Unit:	IFD/CTI
▪ Unit of Disbursement Responsibility:	IFD/CTI
▪ Included in Country Strategy (y/n):	N/A
▪ TC included in CPD (y/n):	N/A
▪ GCI-9 Sector Priority:	The current sector strategy "Institutions for Growth and Social Welfare" identifies <i>improving innovation and productivity</i> as a major area where the Bank can help the region overcome the challenges that hinder growth and social welfare. To this end, the IDB will work towards strengthening institutions, and has specifically recognized the need to improve policies and governmental action in the Information and Communication Technology (ICT) sector (¶5.21). Additionally, "bridging the digital divide" is one of the priorities listed in the <i>Sector Strategy to Support Competitive Global & Regional Integration</i> (GN-2565-4).

¹ A copy of the Letter of Request, Programming/Portfolio Review Mission Aide Memoire or Report requesting the TC should be submitted with the Abstract.

II. Objective and Justification

The harmonization of spectrum planning and management policies and practices among the Caribbean region will create enormous benefits in terms of social impact and increased productivity.

This TC seeks to deepen the harmonization of spectrum planning and management policies and practices across the Caribbean region, including in areas such as white spaces and frequency reutilization.

The efficient use of the digital dividend is key for the Caribbean region, since it will bring both social and productivity benefits. In particular, end users will benefit from lower costs as mobile operators and equipment manufacturers are able to address larger markets, leading to economies of scale for service provision, as well as preventing high costs for handsets. Otherwise, since the analogue switch-off has not materialized yet in the Caribbean, there is a window of opportunity to undertake a spectrum harmonization process in the region, especially in the 700 MHz band.

III. Description of activities and outputs

A Regional Framework to address the most important challenges related to spectrum management & planning and the establishment of a regional Spectrum Management Steering Committee and Task Force will bring important socioeconomic and efficiency benefits for the Caribbean.

Activity 1: Reconstitution of the Caribbean spectrum Management Steering Committee and Task Force comprised by representatives from governments (policy and law makers) and from the private sector (telecommunications providers, business associations, banks, etc.). The establishment of a funding mechanism will also be defined.

Activity 2: Minimize cross border interference between beneficiary countries through the engagement of Caribbean spectrum managers which operate according to the ITU's region 1 and 2 guidelines.

Activities 3: Develop regionally harmonized recommendations and an implementation plan for the digital switchover through research and use of multi-stakeholder consultations.

Activity 4: Development of a harmonized Regional Frequency Allocation Table (RFAT) through the undertaking of surveys and the collection and collation of frequency usage information. This information will lead to the development of the National Frequency Allocation Table (NFAT) for each country and then, to the definition of the harmonized RFAT for the Caribbean.

Activity 5: Development of a Strategic Plan to manage spectrum in the Caribbean including the development of common spectrum pricing principles. This activity will require the development of field audits and recommendations for improving the efficiency and effectiveness of national spectrum management procedures and pricing principles, including those associated with white spaces and reutilization of frequencies. The other reports and frameworks of the TC will inform the Strategic Plan, which will also include a cost-benefit analysis of implementing its recommendations.

IV. Budget

Activity/Component	Description	IDB/Fund Funding	Counterpart Funding	Total Funding
Activity 1	Spectrum Steering Committee	100,000	10,000	110,000
Activity 2	Minimize cross border interference	100,000	10,000	110,000
Activity 3	Plan for the digital switch over	200,000	10,000	210,000
Activity 4	Harmonized RFAT for the Caribbean	160,000	16,000	176,000
Activity 5	Regional Spectrum Strategic Plan	200,000	20,000	220,000
Activities 1, 2, 3, 4 & 5	Travel (consultants)	30,000		30,000
Activities 1, 2, 3, 4 & 5	Regional workshops	110,000	10,000	120,000
Activities 3, 4 & 5	Editing and printing	10,000	2,000	12,000
Activities 1, 2, 3, 4 & 5	Administrative support	90,000	10,000	100,000
Activities 1, 2, 3, 4 & 5	Total	1,000,000	88,000	1,088,000

V. Executing agency and execution structure

The proposal for "Harmonized Caribbean Spectrum Planning and Management" draws on the experience and involvement in the region of Caribbean Telecommunication Union (CTU) and the Bank, in which the roles of both organizations will be complementary, thus ensuring a successful implementation and completion of the project.

The CTU's members include governments, operators, regulators, members of the academic fraternity, and other telecommunications stakeholders. The nature of the CTU's work requires regional approaches which cause the Secretariat to visit and engage each member country in its work, so that all CTU members benefit from its programs. The CTU also facilitates remote participation in its activities and conducts on-line courses to ensure the widest possible participation by members and Stakeholders.

The CTU Secretariat possesses significant expertise in telecommunications and has a network of experts that augments the core Secretariat staff and contributes to the work of the CTU. In addition to the technical staff, the CTU Secretariat has an Administrative Officer, Contract Administrator and other available technical, administrative and event management support which enables work to be undertaken in any the countries covered by this TC.

VI. Project Risks and issues

The major risk of this project is its regional nature, since if some of the Caribbean countries decided not to take part in the proposed spectrum harmonization, the impact of the results will be more limited. In the same line, the Caribbean Spectrum Management Steering Committee and Task Force could be dismantled once the IDB funding disappears. To mitigate these risks, measures during the execution of the project such as the definition of a funding mechanism and its operation should be taken into account to consolidate the Regional Steering Committee and Task Force for the sustainability and efficient and harmonized use of the Caribbean Spectrum.

VII. Environmental and Social Classification

It is not foreseen that there will be environmental or social risks associated to the implementation of this project. Classification of this project is expected to be "C". No environmental assessment studies or consultations are required for category "C" operations.



**MINISTRY OF ENERGY, SCIENCE & TECHNOLOGY
AND PUBLIC UTILITIES**

Old Lands Building, Upper Floor, Market Square, Belmopan City

Telephone No. 501-822-0160/501-822-0162/501-822-2107/501-822-3336

Fax No. 501-822-0433

Email: minister.sec@estpu.gov.bz

Ref: PUB/2/01/13 VOL. II (38)

January 24, 2013

Mrs Anneke Jessen
Country Representative
Inter-American Development Bank
Belize Marina Towers
1024 Newtown Barracks
BELIZE CITY
BELIZE.

Dear Mrs Jessen,

The Ministry of Energy, Science & Technology and Public Utilities, is committed to supporting and participating in implementing the regional project "Caribbean Spectrum Planning and Management Phase II," as indicated in the attached proposal for funding under the IDB's Initiative for the Promotion of Regional Public Goods. We have no objection to the IDB providing the resources needed to undertake the project or to the Caribbean Telecommunications Union (CTU) becoming the executing agency.

The Regional Public Good that the proposal is seeking to promote (i.e. optimised and interference-free usage of spectrum in the Caribbean) is expected to improve competitiveness and productivity of the country and increase penetration of ICTs in other sectors of the economy. The project would also enable an analysis of the existing regulatory framework, particularly related to wireless communications and broadcasting, in order to make changes or new legislation that encourages investment and innovation.

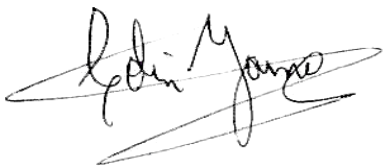
These issues are priorities for our country and therefore, in order to implement this project, the Ministry of Energy, Science & Technology and Public Utilities will support the CTU's coordination

efforts and make a contribution of in-kind resources towards meeting, in part, the budgeted equivalent of US\$88,000. This contribution will help facilitate:-

- i. Gathering information to develop models that allow for an analysis of spectrum usage in the country;
- ii. Supporting the analysis of the existing regulatory framework associated with the planning and management of spectrum; and
- iii. Supervision of the consultancy work and conclusions delivered.

This organisation is committed to the success of the project and to continue promoting and supporting the development of the Regional Public Good through the appropriate activities and plans of action developed to realise the desired outcomes.

Sincerely,

A handwritten signature in black ink, appearing to read 'Colin Young', with a large, sweeping flourish underneath.

(DR. COLIN YOUNG)
CHIEF EXECUTIVE OFFICER
Ministry of Energy, Science & Technology and Public Utilities

cc: Flora Painter Montealegre, Chief of the Competition and Innovation Division, Washington DC

cc: Antonio García Zaballos, Telecommunications Lead Specialist, Washington DC

cc: Bernadette Lewis, Secretary General, Caribbean Telecommunications Union



Office of the President
South Road and Shiv Chanderpaul Drive,
Bourda, Georgetown,
Guyana.

17TH January, 2013

Ms Sophie Makonnen
Representative
Inter-American Development Bank
47 High Street
Kingston
GEORGETOWN

Dear Representative,

The Office of the President is committed to supporting and participating in implementing the regional project "Caribbean Spectrum Planning and Management Phase II," as indicated in the attached proposal for funding under the IDB's Initiative for the Promotion of Regional Public Goods. We have no objection to the IDB providing the resources needed to undertake the project or to the Caribbean Telecommunications Union (CTU) becoming the executing agency.

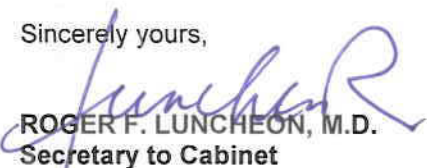
The Regional Public Good that the proposal is seeking to promote (i.e. optimised and interference-free usage of spectrum in the Caribbean) is expected to improve competitiveness and productivity of the country and increase penetration of ICTs in other sectors of the economy. The project would also enable an analysis of the existing regulatory framework, particularly related to wireless communications and broadcasting, in order to make changes or new legislation that encourages investment and innovation.

These issues are priorities for our country and therefore, in order to implement this project, the Office of the President will support the CTU's coordination efforts and make a contribution of in-kind resources towards meeting, in part, the budgeted equivalent of US\$88,000. This contribution will help facilitate:-

- i. Gathering information to develop models that allow for an analysis of spectrum usage in the country;
- ii. Supporting the analysis of the existing regulatory framework associated with the planning and management of spectrum; and
- iii. Supervision of the consultancy work and conclusions delivered.

This organisation is committed to the success of the project and to continue promoting and supporting the development of the Regional Public Good through the appropriate activities and plans of action developed to realise the desired outcomes.

Sincerely yours,


ROGER F. LUNCHEON, M.D.
Secretary to Cabinet
Office of the President

cc: Flora Painter Montealegre, Chief of the Competition and Innovation Division, Washington DC
cc: Antonio Garcia Zaballo, Telecommunications Lead Specialist, Washington DC
cc: Bernadette Lewis, Secretary General, Caribbean Telecommunications Union

JAN 17 15:43:29



MINISTRY OF SCIENCE, TECHNOLOGY, ENERGY AND MINING

PCJ Building, 36 Trafalgar Road, Kingston 10, Jamaica W.I.

Tel. (876) 929-8990-9

Fax: (876) 960-1623

E-mail: info@mstem.gov.jm

Website: <http://www.mstem.gov.jm>

January 7, 2013

Mr. Gerard Johnson
Country Representative (Acting)
Inter-American Development Bank
6th Floor, Dyll Building
40-46 Knutsford Boulevard
Kingston 5

Dear Mr. Johnson,

Re: Harmonised Caribbean Spectrum Planning and Management Project – Phase II

The Ministry of Science, Technology, Energy and Mining of Jamaica is committed to supporting and participating in implementing the regional project "Caribbean Spectrum Planning and Management Phase II," as indicated in the Inter-American Development Bank's proposal for funding under the Initiative for the Promotion of Regional Public Goods. We have no objection to the Inter-American Development Bank providing the resources needed to undertake the project or to the Caribbean Telecommunications Union (CTU) becoming the executing agency.

The Regional Public Good that the proposal is seeking to promote (i.e. optimised and interference-free usage of spectrum in the Caribbean) is expected to improve competitiveness and productivity of the country and increase penetration of Information and Communications Technology in other sectors of the economy. The project would also enable an analysis of the existing regulatory framework, particularly related to wireless communications and broadcasting, in order to make changes or new legislation that encourages investment and innovation.

These issues are priorities for our country and therefore, in order to implement this project, the Ministry of Science, Technology, Energy and Mining will support the CTU's coordination efforts and make a contribution of in-kind resources towards meeting, in part, the budgeted equivalent of US\$88,000. This contribution will help facilitate:-

- i. Gathering information to develop models that allow for an analysis of spectrum usage in the country;
- ii. Supporting the analysis of the existing regulatory framework associated with the planning and management of spectrum; and
- iii. Supervision of the consultancy work and conclusions delivered.

.../2

Page 2

January 7, 2013

Mr. Gerard Johnson

The Ministry is committed to the success of the project and to continue promoting and supporting the development of the Regional Public Good through the appropriate activities and plans of action developed to realise the desired outcomes.

Sincerely,



Phillip Paulwell, M.P.
Minister

Copy: Ms. Flora Painter Montealegre, Chief of the Competition and Innovation Division,
Washington DC, IDB
Mr. Antonio García Zaballo, Telecommunications Lead Specialist, Washington DC, IDB
Ms. Bernadette Lewis, Secretary General, CTU



I n d o t e l
Instituto Dominicano de las Telecomunicaciones

Presidencia

25 de enero de 2013

13001027

Señor

Manuel Labrado

Representante

Banco Interamericano de Desarrollo (BID)

Calle Luis F. Thomen esq. Ave. Winston Churchill

Torre BHD, Piso 10, Evaristo Morales

Santo Domingo, DN

Ref.: Certificación de apoyo al proyecto Armonización y Gestión del Espectro del Caribe, Fase II.

Estimado señor Labrado:

El Instituto Dominicano de las Telecomunicaciones (**INDOTEL**) se compromete en apoyar y a participar en la implementación del proyecto regional "*Planificación y Gestión de Espectro del Caribe Fase II*" como se indica en la propuesta de financiación adjunta a cargo de la Iniciativa del BID para la promoción de Bienes Públicos Regionales. No tenemos ninguna objeción conque el BID proporcione los recursos necesarios para llevar a cabo el proyecto o que la Unión de Telecomunicaciones del Caribe (**CTU**) se convierta en el organismo de ejecución.

La propuesta de los Bienes Públicos Regionales tiene como objetivo promover la optimización del uso del espectro en el Caribe libre de interferencias y se espera que mejore la competitividad y productividad del país y aumente la entrada de las TIC en otros sectores de la economía. El proyecto además permitirá un análisis del marco normativo vigente, particularmente relacionado con las comunicaciones inalámbricas y de radiodifusión, con el objetivo de realizar cambios o una nueva legislación que fomente la inversión y la innovación.

Estas publicaciones son prioritarias para nuestro país y por eso, con el objetivo de poner en práctica este proyecto, el Instituto Dominicano de las Telecomunicaciones (**INDOTEL**) apoyará los esfuerzos de coordinación de la CTU y realizará una aportación de recursos en especie a la reunión, equivalente a US\$88,000.00. Esta contribución ayudará a facilitar:

- i. Recopilación de información para desarrollar modelos que permitan un análisis del uso del espectro en el país;
- ii. Apoyar el análisis del marco normativo vigente asociada con la planificación y gestión del espectro; y
- iii. La supervisión de los trabajos consultoría y las conclusiones entregadas.

.../

25 de enero de 2013
Señor Manuel Labrado
Página 2

Esta organización está comprometida con el éxito del proyecto y a seguir promoviendo y apoyando el desarrollo del Bien Público Regional a través de las actividades adecuadas y planes de acción desarrollados para alcanzar los resultados deseados.

Atentamente,


Lic. Carlos Amarante Baret
Presidente del Consejo Directivo



cc: Flora Painter Montealegre, Jefa de la División de Competencia e Innovación, Washington DC
cc: Antonio García Zaballos, Especialista Principal de Telecomunicaciones, Washington DC
cc: Bernadette Lewis, Secretario General, Unión de Telecomunicaciones del Caribe

PRE-0000016-13


MINISTRY OF TRANSPORT, COMMUNICATION AND TOURISM

Prins Hendrikstraat 26 – 28 Paramaribo

phone. 420422 – 420423 – 420424 Fax: (597) 420425

 e-mail: secretariaatminister@tct.gov.sr Website: www.tct.gov.sr

Feature : FP/odc/jch/14/121
 Buro nr. : 313/13
 Your feature :
 Encl. :
 Subject : letter of commitment

IDB Representative
 Mr. Marco Nicola
 Peter bruneslaan 2-4
Alhier

Paramaribo, 23 januari 2013

Dear mr. Nicola

The Ministry of Transport, Communication and Tourism is committed to supporting and participating in implementing the regional project "Caribbean Spectrum Planning and Management Phase II," as indicated in the attached proposal for funding under the IDB's Initiative for the Promotion of Regional Public Goods. We have no objection to the IDB providing the resources needed to undertake the project or to the Caribbean Telecommunications Union (CTU) becoming the executing agency.

The Regional Public Good that the proposal is seeking to promote (i.e. optimised and interference-free usage of spectrum in the Caribbean) is expected to improve competitiveness and productivity of the country and increase penetration of ICTs in other sectors of the economy. The project would also enable an analysis of the existing regulatory framework, particularly related to wireless communications and broadcasting, in order to make changes or new legislation that encourages investment and innovation.

These issues are priorities for our country and therefore, in order to implement this project, the Ministry of Transport, Communication and Tourism will support the CTU's coordination efforts and make a contribution of in-kind resources towards meeting, in part, the budgeted equivalent of US\$88,000. This contribution will help facilitate:-

- i. Gathering information to develop models that allow for an analysis of spectrum usage in the country;
- ii. Supporting the analysis of the existing regulatory framework associated with the planning and management of spectrum; and
- iii. Supervision of the consultancy work and conclusions delivered.

This organisation is committed to the success of the project and to continue promoting and supporting the development of the Regional Public Good through the appropriate activities and plans of action developed to realise the desired outcomes.

Sincerely,



Falisie J. Pinas, B.Tech
Minister of Transport,
Communication and Tourism,
Republic of Suriname

- ✗ cc: Flora Painter Montealegre, Chief of the Competition and Innovation Division,
Washington DC
- ✗ cc: Antonio García Zaballos, Telecommunications Lead Specialist, Washington DC
- cc: Bernadette Lewis, Secretary General, Caribbean Telecommunications Union



MINISTER OF SCIENCE AND TECHNOLOGY

Levels 18- 19, Tower D
International Waterfront Centre
1A Wrightson Road
Port of Spain
Republic of Trinidad and Tobago

Tel: 1 (868) 627-4188
Fax: 1 (868) 627-1720

ST (ICT):18/17/5

January 24, 2013

Ms Michelle Cross-Senty
Representative
Inter-American Development Bank
17 Alexandria Street
St Clair

Dear Ms Cross-Senty

The Ministry of Science and Technology is committed to supporting and participating in implementing the regional project "Caribbean Spectrum Planning and Management, Phase II," as indicated in the attached proposal for funding under the IDB's Initiative for the Promotion of Regional Public Goods. We have no objection to the IDB providing the resources needed to undertake the project or to the Caribbean Telecommunications Union (CTU) becoming the executing agency.

The Regional Public Good that the proposal is seeking to promote (i.e. optimised and interference-free usage of spectrum in the Caribbean) is expected to improve the country's competitiveness and productivity and increase penetration of ICTs in other sectors of the economy. The project would also enable an analysis of the existing regulatory framework, particularly related to wireless communications and broadcasting, in order to facilitate changes or to elaborate new legislation that encourages investment and innovation.


These issues are priorities for our country, and therefore, in order to implement this Project, the Ministry of Science and Technology will support the CTU's coordination efforts and make a contribution of in-kind resources towards meeting, in part, the budgeted equivalent of US\$88,000. This contribution, it is noted, will help facilitate:

- i. the gathering of information to develop models that allow for an analysis of spectrum usage in the country;
- ii. support for analysis of the existing regulatory framework associated with the planning and management of spectrum; and
- iii. supervision of the consultancy work and conclusions delivered.

.../2

The Ministry of Science and Technology is committed to the success of the project and will continue to promote and support the development of the Regional Public Good through the appropriate activities and Plans of Action developed to realise the desired outcomes.

Yours sincerely,


Dr the Honourable Rupert T Griffith
Minister

cc: Flora Painter Montealegre, Chief of the Competition and Innovation Division, Washington, D.C.

Antonio García Zaballos, Telecommunications Lead Specialist, Washington, D.C.

Bernadette Lewis, Secretary General, Caribbean Telecommunications Union (CTU)



Ministry of Planning and Sustainable Development

Level 14 Eric Williams Finance Building
Independence Square, Port-of-Spain, Trinidad and Tobago, WI
Tel: 627-9711/ Fax 623-8123

May 7th, 2013

Ms. Michelle Cross Fenty
Inter-American Development Bank Country Representative
17 Alexandra Street
St Clair
Port of Spain

Dear Ms. Fenty,

Re: Caribbean Spectrum Planning and Management

The Government of Trinidad and Tobago is committed to supporting and participating in implementing the regional project 'Caribbean Spectrum Planning and Management Phase II,' under the IDB's Initiative for the Promotion of Regional Public Goods. Therefore, we have no objection to the IDB providing resources needed to undertake the project or to the Caribbean Telecommunications Union (CTU) becoming the executing agency.

The Regional Public Good that the proposal is seeking to promote (i.e. optimized and interference-free usage of spectrum in the Caribbean) is expected to improve competitiveness and productivity of the country and increase penetration of ICTs in other sectors of the economy. The project would also enable an analysis of the existing regulatory framework, particularly related to wireless communications and broadcasting, in order to make changes or new legislation that encourages investment and innovation.

These issues are priorities for Trinidad and Tobago therefore, in order to implement this project, the Ministry of Science and Technology will support the CTU's coordination efforts and make a contribution of in-kind resources towards meeting, in part, the budgeted equivalent of US \$88,000.00. This contribution will help facilitate:

- i. Gathering information to develop models that allow for an analysis of spectrum usage in the country;

..... *Cont'd...*

- ii. Supporting the analysis of the existing regulatory framework associated with the planning and management of spectrum;
- iii. Supervision of the consultancy work and conclusions delivered.

The Government is committed to the success of the project and to continue promoting and supporting the development of the Regional Public Good through the appropriate activities and plans of action developed to realize the desired outcomes.

Sincerely,



Permanent Secretary,
Ministry of Planning and Sustainable Development

TERMS OF REFERENCE

IFD/CTI

RG-T2272: Harmonized Caribbean Spectrum Planning and Management

I. BACKGROUND

- 1.1 **Justification:** The electromagnetic spectrum is an essential resource as the digital economy evolves and continues to impact all levels of society. The capacity of each country to take full advantages of use of the spectrum depends largely on its policies over the same and practical mechanisms for regulation and management. Therefore, with the aim of promoting economic and social development, an appropriate management of the electromagnetic spectrum that takes into account advances and technological innovations is a necessary concern for governments.
- 1.2 An optimal strategy in the use and management of the radio spectrum has to take into account principles consistent with the development needs of the sector. There is a need for a regional harmonized spectrum management; for minimizing interference between the countries under Regions 1 and 2 of the International Telecommunications Union (ITU); as well as for flexible management and use of spectrum to allow the development of future services and technologies.
- 1.3 Caribbean countries have recognized this challenge of managing the spectrum effectively and with the support of the Caribbean Telecommunications Union (CTU), have implemented the first phase of the *Caribbean Spectrum Planning and Management Project*, within which the *Caribbean Spectrum Management Task Force* was created, having being active between 2005 and 2008. Among other outputs, the Project assessed the status quo of the spectrum management in the region, and provided specific policy objectives and prescriptions for the creation, maintenance and governance of a regionally standardized spectrum usage in the Caribbean.
- 1.4 Further, the issue of switchover from analogue to digital TV broadcasting and use of the digital dividend in the Caribbean was highlighted for priority attention by resolution of the General Conference of Ministers of the Caribbean Telecommunications Union in December 2011. In pursuance of this mandate, the CTU has organized several meetings on 2012 which enabled regional information gathering and capacity building on digital switchover and the digital dividend. It remains now for consensus building work to proceed in order to achieve the desired goal of harmonizing approaches to digital switchover in the Caribbean.
- 1.5 CTU and the Inter-American Development Bank (IDB) have designed a Technical Cooperation (TC) based on the expertise both have in the region and the sector involved. The TC is based on five activities oriented to bring the best international practices on the electromagnetic spectrum management, following past assessments made by the *Caribbean Spectrum Management Task Force* in 2008.
- 1.6 The activities comprised in the aforementioned TC are the following: (i) Activity 1: Reconstitution of governing bodies; (ii) Activity 2: Design of mechanisms to provide

sustainability to the governing bodies; (iii) Activity 3: Frequency Band Analysis; (iv) Activity 4: Development of a Strategic Regional Spectrum Management Plan; and (v) Activity 5: Frequency Band Proposal. As a result of this project, beneficiary countries will have the necessary information and tools to deepen the harmonization of spectrum planning and management policies and practices across the Caribbean region. The regulatory and procedural changes will ultimately result in cost reductions for mobile broadband services, thereby promoting the population's adoption and usage of broadband and the region's insertion in the digital economy.

- 1.7 These terms of reference define the required background and expertise, as well as the objectives, activities and the products to be carried out and delivered by a Consulting Firm or Institution hired under the TC. This product corresponds to **Activity I** of the Regional Technical Cooperation in reference.

II. CONSULTANCY OBJECTIVES

- 2.1 The main objective of this consultancy is to support the Executing Agency in the performance of the **Activity I** of RG-T2272. The Consultant or Company hired under these TOR is responsible for the reconstitution of the governing bodies, namely the Caribbean spectrum Management Steering Committee and the Task Force. These bodies will comprise representatives from governments (policy and law makers) and from the private sector (telecommunications providers, business associations, banks, etc.).

III. CHARACTERISTICS OF THIS CONSULTANCY

- 3.1 **Type of consultant:** Firm
- 3.2 **Start date and duration:** from, to, 2013.
- 3.3 **Place of work /travel:** Place of residence. Travels to the Caribbean countries members of the CTU are required. During this period, the consultant is expected to attend all meetings of the Caribbean spectrum Management Steering Committee and Task Force. Travel related expenses will be covered by the consultant, under the terms of this contract. No additional funding will be provided by the IDB.
- 3.4 **Qualifications:** The firm or consultant will have extensive experience in the telecommunications sector in the Caribbean. Specific knowledge of national and international broadband markets, especially concerning electromagnetic spectrum issues is required. The consultant or firm must have a proven ability to coordinate multi-stakeholder groups comprising members of the government, private sector and civil society.
- 3.5 **Source of funding:** Regional Integration Infrastructure Fund (RIIF).

IV. ACTIVITIES AND PRODUCTS

- 4.1 The Consultant or Company will be responsible for:
- 4.2 Liaising with the Caribbean Spectrum Management Steering Committee and the Task Force, as well as for ensuring that the communication and cooperation between the stakeholders is fluent and clear.
- 4.3 Organizing bi-monthly meetings with stakeholders, and making sure to achieving mutual understanding among stakeholders;
- 4.4 Writing minutes of the meetings and publishing trimestral reports summarizing the debates and activities of the Caribbean Spectrum Management Steering Committee and the Task Force.
- 4.5 Writing the by-laws of the Caribbean Spectrum Management Steering Committee and Task Force, covering the role of both bodies, its functions under the CTU processes, its members and the funding needs to operate both of them.

V. PAYMENT

- 5.1 Payment will be made as per the following schedule, upon approval by the Team Leader responsible for this TC (See item VI below).
- 5.2 **Schedule of payments:**
 - i. 10% upon contract signature;
 - ii. 20% upon approval of bylaws, and
 - iii. 70% in bi-monthly installments throughout the contract period.

VI. COORDINATION

- 6.1 Supervision and coordination of the consultant's work will be the responsibility of Antonio García Zaballos (IFD/CTI), Team Leader, antoniogar@iadb.org, tel. (202) 623-2980.

TERMS OF REFERENCE

IFD/CTI

RG-T2272: Harmonized Caribbean Spectrum Planning and Management

I. BACKGROUND

- 1.1 **Justification:** The electromagnetic spectrum is an essential resource as the digital economy evolves and continues to impact all levels of society. The capacity of each country to take full advantages of use of the spectrum depends largely on its policies over the same and practical mechanisms for regulation and management. Therefore, with the aim of promoting economic and social development, an appropriate management of the electromagnetic spectrum that takes into account advances and technological innovations is a necessary concern for governments.
- 1.2 An optimal strategy in the use and management of the radio spectrum has to take into account principles consistent with the development needs of the sector. There is a need for a regional harmonized spectrum management; for minimizing interference between the countries under Regions 1 and 2 of the International Telecommunications Union (ITU); as well as for flexible management and use of spectrum to allow the development of future services and technologies.
- 1.3 Caribbean countries have recognized this challenge of managing the spectrum effectively and with the support of the Caribbean Telecommunications Union (CTU), have implemented the first phase of the *Caribbean Spectrum Planning and Management Project*, within which the *Caribbean Spectrum Management Task Force* was created, having being active between 2005 and 2008. Among other outputs, the Project assessed the status quo of the spectrum management in the region, and provided specific policy objectives and prescriptions for the creation, maintenance and governance of a regionally standardized spectrum usage in the Caribbean.
- 1.4 Further, the issue of switchover from analogue to digital TV broadcasting and use of the digital dividend in the Caribbean was highlighted for priority attention by resolution of the General Conference of Ministers of the Caribbean Telecommunications Union in December 2011. In pursuance of this mandate, the CTU has organized several meetings on 2012 which enabled regional information gathering and capacity building on digital switchover and the digital dividend. It remains now for consensus building work to proceed in order to achieve the desired goal of harmonizing approaches to digital switchover in the Caribbean.
- 1.5 CTU and the Inter-American Development Bank (IDB) have designed a Technical Cooperation (TC) based on the expertise both have in the region and the sector involved. The TC is based on five activities oriented to bring the best international practices on the electromagnetic spectrum management, following past assessments made by the *Caribbean Spectrum Management Task Force* in 2008.
- 1.6 The activities comprised in the aforementioned TC are the following: (i) Activity 1: Reconstitution of governing bodies; (ii) Activity 2: Design of mechanisms to provide

sustainability to the governing bodies; (iii) Activity 3: Frequency Band Analysis; (iv) Activity 4: Development of a Strategic Regional Spectrum Management Plan; and (v) Activity 5: Frequency Band Proposal. As a result of this project, beneficiary countries will have the necessary information and tools to deepen the harmonization of spectrum planning and management policies and practices across the Caribbean region. The regulatory and procedural changes will ultimately result in cost reductions for mobile broadband services, thereby promoting the population's adoption and usage of broadband and the region's insertion in the digital economy.

- 1.7 These terms of reference define the required background and expertise, as well as the objectives, activities and the products to be carried out and delivered by a Consulting Firm or Institution hired under the TC. This product corresponds to **Activity II** of the Regional Technical Cooperation in reference.

II. CONSULTANCY OBJECTIVES

- 2.1 The main objective of this consultancy is to support the Executing Agency in the performance of the **Activity II** of RG-T2272. The Consultant or Company hired under these TOR is responsible for the design of mechanisms to provide sustainability to the governing bodies of the Caribbean Spectrum Management Steering Committee and Task Force.

III. CHARACTERISTICS OF THIS CONSULTANCY

- 3.1 **Type of consultant:** Firm
- 3.2 **Start date and duration:** from, to, 2013.
- 3.3 **Place of work /travel:** Place of residence. During the contract period, the consultant might be requested to attend meetings with CTU and the Caribbean Spectrum Management Steering Committee and Task Force. Travel related expenses will be covered by the consultant, under the terms of this contract. No additional funding will be provided by the IDB.
- 3.4 **Qualifications:** The firm or consultant will have extensive experience in the telecommunications sector in the Caribbean. Specific knowledge of national and international broadband markets, especially concerning electromagnetic spectrum issues is required. Experience with funding mechanisms for multi-stakeholder initiatives is a plus.
- 3.5 **Source of funding:** Regional Integration Infrastructure Fund (RIIF).

IV. ACTIVITIES AND PRODUCTS

- 4.1 The Consultant or Company will be responsible for:
- 4.2 Writing a study on possible funding mechanisms aiming at the sustainability of the Caribbean spectrum Management Steering Committee and Task Force. The study might assess public and private funding solutions as well as possible public-private partnerships.

V. PAYMENT

- 5.1 Payment will be made as per the following schedule, upon approval by the Team Leader responsible for this TC (See item VI below).
- 5.2 **Schedule of payments:**
 - i. 20% upon contract signature;
 - ii. 80% upon the approval of the study.

VI. COORDINATION

- 6.1 Supervision and coordination of the consultant's work will be the responsibility of Antonio García Zaballos (IFD/CTI), Team Leader, antoniogar@iadb.org, tel. (202) 623-2980.

TERMS OF REFERENCE

IFD/CTI

RG-T2272: Harmonized Caribbean Spectrum Planning and Management

I. BACKGROUND

- 1.1 **Justification:** The electromagnetic spectrum is an essential resource as the digital economy evolves and continues to impact all levels of society. The capacity of each country to take full advantages of use of the spectrum depends largely on its policies over the same and practical mechanisms for regulation and management. Therefore, with the aim of promoting economic and social development, an appropriate management of the electromagnetic spectrum that takes into account advances and technological innovations is a necessary concern for governments.
- 1.2 An optimal strategy in the use and management of the radio spectrum has to take into account principles consistent with the development needs of the sector. There is a need for a regional harmonized spectrum management; for minimizing interference between the countries under Regions 1 and 2 of the International Telecommunications Union (ITU); as well as for flexible management and use of spectrum to allow the development of future services and technologies.
- 1.3 Caribbean countries have recognized this challenge of managing the spectrum effectively and with the support of the Caribbean Telecommunications Union (CTU), have implemented the first phase of the *Caribbean Spectrum Planning and Management Project*, within which the *Caribbean Spectrum Management Task Force* was created, having being active between 2005 and 2008. Among other outputs, the Project assessed the status quo of the spectrum management in the region, and provided specific policy objectives and prescriptions for the creation, maintenance and governance of a regionally standardized spectrum usage in the Caribbean.
- 1.4 Further, the issue of switchover from analogue to digital TV broadcasting and use of the digital dividend in the Caribbean was highlighted for priority attention by resolution of the General Conference of Ministers of the Caribbean Telecommunications Union in December 2011. In pursuance of this mandate, the CTU has organized several meetings on 2012 which enabled regional information gathering and capacity building on digital switchover and the digital dividend. It remains now for consensus building work to proceed in order to achieve the desired goal of harmonizing approaches to digital switchover in the Caribbean.
- 1.5 CTU and the Inter-American Development Bank (IDB) have designed a Technical Cooperation (TC) based on the expertise both have in the region and the sector involved. The TC is based on five activities oriented to bring the best international practices on the electromagnetic spectrum management, following past assessments made by the *Caribbean Spectrum Management Task Force* in 2008.

- 1.6 The activities comprised in the aforementioned TC are the following: (i) Activity 1: Reconstitution of governing bodies; (ii) Activity 2: Design of mechanisms to provide sustainability to the governing bodies; (iii) Activity 3: Frequency Band Analysis; (iv) Activity 4: Development of a Strategic Regional Spectrum Management Plan; and (v) Activity 5: Frequency Band Proposal. As a result of this project, beneficiary countries will have the necessary information and tools to deepen the harmonization of spectrum planning and management policies and practices across the Caribbean region. The regulatory and procedural changes will ultimately result in cost reductions for mobile broadband services, thereby promoting the population's adoption and usage of broadband and the region's insertion in the digital economy.
- 1.7 These terms of reference define the required background and expertise, as well as the objectives, activities and the products to be carried out and delivered by a Consulting Firm or Institution hired under the TC. This product corresponds to **Activities III and V** of the Regional Technical Cooperation in reference.

II. CONSULTANCY OBJECTIVES

- 2.1 The main objective of this consultancy is to support the Executing Agency in the performance of the **Activities III and V** of RG-T2272. The Consultant or Company hired under these TOR is responsible for developing National Frequency Allocation Table (NFAT) for each beneficiary country of the TC as well as developing of a Regional Frequency Allocation Table (RFAT).

III. CHARACTERISTICS OF THIS CONSULTANCY

- 3.1 **Type of consultant:** Firm
- 3.2 **Start date and duration:** from, to, 2013.
- 3.3 **Place of work /travel:** Place of residence. During the contract period, the consultant might be requested to attend meetings with CTU and the Caribbean spectrum Management Steering Committee and Task Force. Travel related expenses will be covered by the consultant, under the terms of this contract. No additional funding will be provided by the IDB.
- 3.4 **Qualifications:** The firm or consultant will have extensive experience in telecommunications engineering and designing spectrum plans is required. Extensive Experience with Caribbean is a plus.
- 3.5 **Source of funding:** Regional Integration Infrastructure Fund (RIIF).

IV. ACTIVITIES AND PRODUCTS

- 4.1 The Consultant or Company will be responsible for:
- 4.2 Assessing and evaluating current national frequency band plans;
- 4.3 Developing of the National Frequency Allocation Table (NFAT) for each country through the undertaking of surveys and the collection and collation of frequency usage information;
- 4.4 Developing a Regional Frequency Allocation Table (RFAT) for the Caribbean countries that are beneficiaries of the TC.

V. PAYMENT

- 5.1 Payment will be made as per the following schedule, upon approval by the Team Leader responsible for this TC (See item VI below).
- 5.2 **Schedule of payments:**
 - i. 20% upon contract signature;
 - ii. 40% upon the approval of the NFATs for each country; and
 - iii. 40% upon the approval of the RFAT for the beneficiary countries.

VI. COORDINATION

Supervision and coordination of the consultant's work will be the responsibility of Antonio García Zaballos (IFD/CTI), Team Leader, antoniogar@iadb.org, tel. (202) 623-2980.

TERMS OF REFERENCE

IFD/CTI

RG-T2272: Harmonized Caribbean Spectrum Planning and Management

I. BACKGROUND

- 1.1 **Justification:** The electromagnetic spectrum is an essential resource as the digital economy evolves and continues to impact all levels of society. The capacity of each country to take full advantages of use of the spectrum depends largely on its policies over the same and practical mechanisms for regulation and management. Therefore, with the aim of promoting economic and social development, an appropriate management of the electromagnetic spectrum that takes into account advances and technological innovations is a necessary concern for governments.
- 1.2 An optimal strategy in the use and management of the radio spectrum has to take into account principles consistent with the development needs of the sector. There is a need for a regional harmonized spectrum management; for minimizing interference between the countries under Regions 1 and 2 of the International Telecommunications Union (ITU); as well as for flexible management and use of spectrum to allow the development of future services and technologies.
- 1.3 Caribbean countries have recognized this challenge of managing the spectrum effectively and with the support of the Caribbean Telecommunications Union (CTU), have implemented the first phase of the *Caribbean Spectrum Planning and Management Project*, within which the *Caribbean Spectrum Management Task Force* was created, having being active between 2005 and 2008. Among other outputs, the Project assessed the status quo of the spectrum management in the region, and provided specific policy objectives and prescriptions for the creation, maintenance and governance of a regionally standardized spectrum usage in the Caribbean.
- 1.4 Further, the issue of switchover from analogue to digital TV broadcasting and use of the digital dividend in the Caribbean was highlighted for priority attention by resolution of the General Conference of Ministers of the Caribbean Telecommunications Union in December 2011. In pursuance of this mandate, the CTU has organized several meetings on 2012 which enabled regional information gathering and capacity building on digital switchover and the digital dividend. It remains now for consensus building work to proceed in order to achieve the desired goal of harmonizing approaches to digital switchover in the Caribbean.
- 1.5 CTU and the Inter-American Development Bank (IDB) have designed a Technical Cooperation (TC) based on the expertise both have in the region and the sector involved. The TC is based on five activities oriented to bring the best international practices on the electromagnetic spectrum management, following past assessments made by the *Caribbean Spectrum Management Task Force* in 2008.
- 1.6 The activities comprised in the aforementioned TC are the following: (i) Activity 1: Reconstitution of governing bodies; (ii) Activity 2: Design of mechanisms to provide

sustainability to the governing bodies; (iii) Activity 3: Frequency Band Analysis; (iv) Activity 4: Development of a Strategic Regional Spectrum Management Plan; and (v) Activity 5: Frequency Band Proposal. As a result of this project, beneficiary countries will have the necessary information and tools to deepen the harmonization of spectrum planning and management policies and practices across the Caribbean region. The regulatory and procedural changes will ultimately result in cost reductions for mobile broadband services, thereby promoting the population's adoption and usage of broadband and the region's insertion in the digital economy.

- 1.7 These terms of reference define the required background and expertise, as well as the objectives, activities and the products to be carried out and delivered by a Consulting Firm or Institution hired under the TC. This product corresponds to **Activity IV** components (i), (ii) and (iii) of the Regional Technical Cooperation in reference.

II. CONSULTANCY OBJECTIVES

- 2.1 The main objective of this consultancy is to support the Executing Agency in the performance of the **Activity IV**, components (i), (ii) and (iii) of RG-T2272. The Consultant or Company hired under these TOR is responsible for developing a Strategic Regional Spectrum Management Plan for the beneficiary countries.

III. CHARACTERISTICS OF THIS CONSULTANCY

- 3.1 **Type of consultant:** Firm
- 3.2 **Start date and duration:** from, to, 2013.
- 3.3 **Place of work /travel:** Place of residence. During the contract period, the consultant might be requested to attend meetings with CTU and the Caribbean spectrum Management Steering Committee and Task Force. Travel related expenses will be covered by the consultant, under the terms of this contract. No additional funding will be provided by the IDB.
- 3.4 **Qualifications:** The firm or consultant will be required to have extensive experience in telecommunications engineering and electromagnetic spectrum policies and regulations. Experience with Caribbean is a plus.
- 3.5 **Source of funding:** Regional Integration Infrastructure Fund (RIIF).

IV. ACTIVITIES AND PRODUCTS

- 4.1 The Consultant or Company will be responsible for developing a Strategic Regional Spectrum Management Plan, comprising (i) a framework to minimize cross border interference between beneficiary countries, considering technology and standard applications, and network planning, infrastructure and spectrum compatibility; (ii) an

implementation plan for the digital switchover, with recommendations for the allocation of frequencies; and (iii) a proposal for white spaces management and regulation.

V. PAYMENT

5.1 Payment will be made as per the following schedule, upon approval by the Team Leader responsible for this TC (See item VI below).

5.2 Schedule of payments:

- i. 20% upon contract signature;
- ii. 20% upon the approval of each of the three component; and
- iii. 20% upon the approval of the final Strategic Regional Spectrum Management Plan.

VI. COORDINATION

6.1 Supervision and coordination of the consultant's work will be the responsibility of Antonio García Zaballos (IFD/CTI), Team Leader, antoniogar@iadb.org, tel. (202) 623-2980.

TERMS OF REFERENCE

IFD/CTI

RG-T2272: Harmonized Caribbean Spectrum Planning and Management

I. BACKGROUND

- 1.1 **Justification:** The electromagnetic spectrum is an essential resource as the digital economy evolves and continues to impact all levels of society. The capacity of each country to take full advantages of use of the spectrum depends largely on its policies over the same and practical mechanisms for regulation and management. Therefore, with the aim of promoting economic and social development, an appropriate management of the electromagnetic spectrum that takes into account advances and technological innovations is a necessary concern for governments.
- 1.2 An optimal strategy in the use and management of the radio spectrum has to take into account principles consistent with the development needs of the sector. There is a need for a regional harmonized spectrum management; for minimizing interference between the countries under Regions 1 and 2 of the International Telecommunications Union (ITU); as well as for flexible management and use of spectrum to allow the development of future services and technologies.
- 1.3 Caribbean countries have recognized this challenge of managing the spectrum effectively and with the support of the Caribbean Telecommunications Union (CTU), have implemented the first phase of the *Caribbean Spectrum Planning and Management Project*, within which the *Caribbean Spectrum Management Task Force* was created, having being active between 2005 and 2008. Among other outputs, the Project assessed the status quo of the spectrum management in the region, and provided specific policy objectives and prescriptions for the creation, maintenance and governance of a regionally standardized spectrum usage in the Caribbean.
- 1.4 Further, the issue of switchover from analogue to digital TV broadcasting and use of the digital dividend in the Caribbean was highlighted for priority attention by resolution of the General Conference of Ministers of the Caribbean Telecommunications Union in December 2011. In pursuance of this mandate, the CTU has organized several meetings on 2012 which enabled regional information gathering and capacity building on digital switchover and the digital dividend. It remains now for consensus building work to proceed in order to achieve the desired goal of harmonizing approaches to digital switchover in the Caribbean.
- 1.5 CTU and the Inter-American Development Bank (IDB) have designed a Technical Cooperation (TC) based on the expertise both have in the region and the sector involved. The TC is based on five activities oriented to bring the best international practices on the electromagnetic spectrum management, following past assessments made by the *Caribbean Spectrum Management Task Force* in 2008.
- 1.6 The activities comprised in the aforementioned TC are the following: (i) Activity 1: Reconstitution of governing bodies; (ii) Activity 2: Design of mechanisms to provide

sustainability to the governing bodies; (iii) Activity 3: Frequency Band Analysis; (iv) Activity 4: Development of a Strategic Regional Spectrum Management Plan; and (v) Activity 5: Frequency Band Proposal. As a result of this project, beneficiary countries will have the necessary information and tools to deepen the harmonization of spectrum planning and management policies and practices across the Caribbean region. The regulatory and procedural changes will ultimately result in cost reductions for mobile broadband services, thereby promoting the population's adoption and usage of broadband and the region's insertion in the digital economy.

- 1.7 These terms of reference define the required background and expertise, as well as the objectives, activities and the products to be carried out and delivered by a Consulting Firm or Institution hired under the TC. This product corresponds to **Activity IV** component (iv) of the Regional Technical Cooperation in reference.

II. CONSULTANCY OBJECTIVES

- 2.1 The main objective of this consultancy is to support the Executing Agency in the performance of the **Activity IV**, component (iv) of RG-T2272. The Consultant or Company hired under these TOR is responsible for assessing of common pricing principles and methods for determining pricing values.

III. CHARACTERISTICS OF THIS CONSULTANCY

3.6 **Type of consultant:** Firm

3.7 **Start date and duration:** from, to, 2013.

3.8 **Place of work /travel:** Place of residence. During the contract period, the consultant might be requested to attend meetings with CTU and the Caribbean spectrum Management Steering Committee and Task Force. Travel related expenses will be covered by the consultant, under the terms of this contract. No additional funding will be provided by the IDB.

3.9 **Qualifications:** The firm or consultant will have an advanced degree in Economics and/or Engineering as well as extensive experience in telecommunications policy and regulation. Background in electromagnetic spectrum pricing is required. Experience with Caribbean is a plus.

3.10 **Source of funding:** Regional Integration Infrastructure Fund (RIIF).

IV. ACTIVITIES AND PRODUCTS

- 4.1 The Consultant or Company will be responsible for assessing spectrum common pricing principles and methods for determining pricing values. The consultant will be responsible for developing a roadmap for price determination, including (i) the definition of pricing goals; (ii) the assessment of demand; (iii) the assessment of costs; (iv) and the choice of pricing methods. This activity comprises consultations with stakeholders and the Spectrum Management Steering Committee and Task Force.

V. PAYMENT

- 5.3 Payment will be made as per the following schedule, upon approval by the Team Leader responsible for this TC (See item VI below).

5.4 **Schedule of payments:**

- i. 20% upon contract signature;
- ii. 80% upon the approval of the assessment.

VI. COORDINATION

- 6.1 Supervision and coordination of the consultant's work will be the responsibility of Antonio García Zaballos (IFD/CTI), Team Leader, antoniogar@iadb.org, tel. (202) 623-2980.

HARMONIZED CARIBBEAN SPECTRUM PLANNING AND MANAGEMENT (RG-T2272)

PROCUREMENT PLAN

No. Ref.	Description and type of the procurement contract	Estimated contract Cost US\$000	Procurement method ¹	Review (ex-ante or ex-post)	Source of financing and percentage		Prequalification (Yes/No)	Estimated dates		Status (pending, in progress, awarded, cancelled)	Comments
					IDB %	Local / other %		Publication of specific procurement notice	Completion of contract		
1	GOODS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2	WORKS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3	NON-CONSULTING SERVICES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
4	CONSULTING SERVICES (Individual)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
5	CONSULTING SERVICES (Firms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
5.1	Activity 1: Spectrum Steering Committee and Task Force	110,000	CQS	N/A	91%	9%	No	N/A	2013	Pending	
5.2	Activity 2: Study on possible funding mechanisms	30,000	CQS	N/A	66,6%	33,3%	No	N/A	2013	Pending	
5.4	Activity 3 and 5: Development of National Frequency Allocation Tables and a harmonized Regional Frequency Allocation Table	256,000	CBQS	N/A	94%	6%	No	N/A	2015	Pending	
5.5	Activity 4: Development of a Strategic Regional Spectrum Management Plan	430,000	CBQS	N/A	93%	7%	No	N/A	2015	Pending	

¹ **Goods and Works:** ICB: International competitive bidding; LIB: limited international bidding; NCB: national competitive bidding; PC: price comparison; DC: direct contracting; FA: force account; PSA: Procurement through Specialized Agencies; PA: Procurement Agents; IA: Inspection Agents; PLFI: Procurement in Loans to Financial Intermediaries; BOO/BOT/BOOT: Build, Own, Operate/Build, Operate, Transfer/Build, Own, Operate, Transfer; PBP: Performance-Based Procurement; PLGB: Procurement under Loans Guaranteed by the Bank; PCP: Community participation procurement. **Consulting Firms:** QCBS: Quality- and Cost-Based Selection QBS: Quality-Based Selection FBS: Selection under a Fixed Budget; LCS: Least-Cost Selection; CQS: Selection based on the Consultants' Qualifications; SSS: Single-Source Selection. **Individual Consultants:** NICQ: National Individual Consultant selection based on Qualifications; IICC: International Individual Consultant selection based on Qualifications.