



**Caribbean  
Telecommunications  
Union**

*Presented by*

**Mr. Gary Kalloo  
HCSPMP Programme Manager**

# **Harmonized Caribbean Spectrum Planning & Management Project and WRC – 15 Perspectives**

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**9th Annual HR forum | 2nd Annual Marketing Forum |  
BIIPAC Project Updates**

# Harmonized Caribbean Spectrum Planning and Management Project

Funded via Technical Cooperation Agreements with:



## OBJECTIVE:

To deepen the harmonization of spectrum planning and management policies and practices across the Caribbean Region, including areas such as white spaces and frequency reutilization.

# Harmonized Caribbean Spectrum Planning and Management Project

## **COROLLARY OBJECTIVE:**

To utilize the findings and outputs of the spectrum harmonization work to coordinate Caribbean positions and proposals for communication to and participation in the World Radiocommunication Conference 2015 (WRC-15)

# Participating/Beneficiary Countries

Funded via IDB	Funded via Compete Caribbean
<ul style="list-style-type: none"><li>• The Bahamas</li><li>• Barbados</li><li>• Belize</li><li>• Dominican Republic</li><li>• Guyana</li><li>• Jamaica</li><li>• Suriname</li><li>• Trinidad and Tobago</li></ul>	<ul style="list-style-type: none"><li>• Antigua / Barbuda</li><li>• Dominica</li><li>• Grenada</li><li>• St Lucia</li><li>• St Kitts and Nevis</li><li>• St Vincent &amp; the Grenadines</li></ul>

# Why Harmonise

## Benefits of harmonized spectrum:

- **Economies of scale** in equipment manufacturing;
- Competitive market for equipment **procurement**;
- Increased spectrum **efficiency**;
- Stability in **band planning** and **interference management**
- Increased effective response to **disaster management**.

## It pays off to maintain compatibility:

- facilitation of regional roaming
- use of common devices
- potential to mitigate interference issues

# Project Key Objectives

1. Assessment of current national frequency band plans and development of Frequency Allocation Tables (national and regional).
2. Development of a strategic regional spectrum management plan to include:
  - Minimization of cross border interference
  - Harmonized approaches to digital switchover and white spaces management
  - Common pricing principles.
3. Reconstitution of governing bodies & design of mechanisms to provide sustainability to the governing bodies.

# Project Deliverables

Development of a regional plan, including:

1. Framework to minimize cross border interference between beneficiary countries;
2. Harmonized technical and policy approaches for the digital switchover;
3. Proposal for white spaces management and regulation; and
4. An assessment of common pricing principles and methods for pricing values.
5. Proposals for National and Regional Frequency Allocation Tables

# Project Update – Input into WRC 15

- Accelerate the implementation of four major consultancies to inform WRC 15 country positions.
- Facilitate consultancy reports review and capacity building workshops with concurrent WRC-15 Preparatory meetings.
- Utilize the outputs of the reports to consolidate Caribbean positions on WRC-15 issues for CITELE's Aug 2015 preparatory meeting.
- Facilitate 3 WRC 15 Preparatory workshops
- Engage inputs from key industry stakeholders to inform our members' position on WRC-15 agenda items, including GSMA, CITELE, GVF, FCC, CBU.



# Key Considerations for WRC 15

## Agenda Item 1.1 - Mobile Broadband/IMT

- Expand broadband spectrum to meet consumer demand and promote economic development.
- Provide harmonized spectrum to meet the global needs of manufacturers and consumers.
- Promote regulatory flexibility wherever possible to enable technological evolution.
- Protect existing operations, while increasing efficiency with advanced sharing techniques where practical.

# Key Considerations for WRC 15

**WRC-15 CANDIDATE BANDS IN THE CPM REPORT ARE:**

<b>Band</b>	<b>Frequency Ranges</b>	
UHF	470 - 694/698 MHz	
L-band	1350 - 1400 MHz 1427 - 1452 MHz 1452 - 1492 MHz	1492 - 1518 MHz 1518 - 1525 MHz 1695 - 1710 MHz
S-band	2700 - 2900 MHz	
C-band	3300 - 3400 MHz 3400 - 3600 MHz 3600 - 3700 MHz 3700 - 3800 MHz 3800 - 4200 MHz 4400 - 4500 MHz	4500 - 4800 MHz 4800 - 4990 MHz 5350 - 5470 MHz 5725 - 5850 MHz 5925 - 6425 MHz

# Considerations for WRC 15

## Agenda Item 1.1 - Mobile Broadband/IMT in UHF (470-698 MHz)

### **Objectives:**

- Primary allocation to the mobile service in 470-698 MHz band and identification for IMT in all regions, with full flexibility to preserve and protect broadcasting and other services.
- Facilitate international spectrum harmonization in 470-698 MHz.

### **Rationale:**

- Mobile allocation would allow countries to maximize accessibility and benefit of UHF spectrum.
- Broadcasting deployment in the UHF band varies from country to country - parts of the band are unused in many countries.
- Ensuring protection of broadcasting and other services is a priority and can be achieved with appropriate regulatory constraints on mobile systems

# Key Considerations for WRC 15

## Agenda Item 1.1 - Mobile Broadband/IMT in (1427-1525 MHz)

### Objectives:

- CITELE IAPs proposing:
  - IMT in the 1427-1518 MHz band within Region 2, and
  - NOC to RR No. 5.343.
- (1) CPM Method C (IMT) for the 1427-1518 MHz band, and (2) Method A (NOC) for the 1518-1535 MHz frequency range. These would be applicable to Region 2 only.

### Rationale:

- Supporting IMT within Region 2 will expand mobile broadband and economic development throughout the Americas.
- Preserving RR No. 5.343 protects commercial aircraft testing and training facilities that are utilized by multiple countries.

# Key Considerations for WRC 15

## Agenda Item 1.1 - Mobile Broadband/IMT in C-Band (3400-4200 MHz)

### Objectives:

- **Objectives:**
- Facilitate international spectrum harmonization by identifying frequency range 3 400-3 700 MHz for IMT in Region 2.
- Preserve extensive FSS operations – NOC in 3 700-4 200 MHz in Region 2.

### Rationale:

- WRC-07 identified 3.4-3.6 GHz band for IMT in 90 countries in Regions 1 and 3 but none in Region 2.
- C-band's limited propagation characteristics along with PFD limits and applicable coordination provisions make it well-suited for international (cross-border) spectrum sharing.
- Deployment of mobile/IMT systems within a country is exclusively at the discretion of the national authority.

# Key Considerations for WRC 15

BAND	IMT	NOC
470-698 MHz	USA, Canada Colombia & Mexico Caribbean [ T and T, Belize, Bahamas 614 MHz ?]	Brazil, Argentina, Chile, DOM, Ecuador, El Salvador, Guatemala, Nicaragua, Panama & Paraguay, Peru, URG
1350-1400 MHz 1427-1518 MHz	Brazil, Canada, CHL, CLM, CTR, DOM, Ecuador, Guatemala, Mexico PRU, URG, USA	
2.7-2.9 GHz	Brazil considering, CITELE survey some countries use for radars, some have limited or no use	-
3.4-4.2 GHz	Brazil/Ecuador/Costa Rica/Colombia: 3.4-3.6 GHz US/Canada: 3.4-3.7 GHz	Nicaragua, Bolivia, El Salvador & Mexico: 3.4-4.2 GHz, NCR, Panama Brazil/Ecuador: 3.6-4.2 GHz

# CTU's Facilitation Role in Preparation for CITELE & WRC15

- Facilitate preparatory meetings
- Consider findings and results of spectrum project consultancy reports in establishing/informing positions
- Engage inputs from industry stakeholders – Mobile, satellite, broadcast, operators
- Individual spectrum needs
- Interference issues
- The 'real' need for additional mobile spectrum
- Consensus on positions, particularly mobile spectrum
- Representation at CITELE and WRC 15



**CTU**

**Thank you!**  
**Questions and Answers**