|  |  |
| --- | --- |
| **Telecommunication Development Advisory Group (TDAG)**  **25th Meeting, Geneva, 2-5 June 2020** | C:\Users\comas\AppData\Local\Temp\Rar$DRa0.735\jpg\ITU official logo_blue_RGB.jpg |
|  |  |
|  | **Document** **TDAG-20/****INF/3-E** |
|  | **22 January 2020** |
|  | **English only** |
| Director, Telecommunication Development Bureau | |
| DETAILED INFORMATION ON THE IMPLEMENTATION of WTDC resolution 9 | |
|  | |
| **Summary:**  This document provides an overview on the ITU activities for implementation of Resolution 9 in addition to the corresponding section in Document [TDAG-20/2](https://www.itu.int/md/D18-TDAG25-C-0023/).  **Action required:**  TDAG is invited to note this document.  **References:**  WTDC Resolution 9 (Rev. 2017, Buenos Aires) | |

**DETAILED INFORMATION ON IMPLEMENTATION OF RESOLUTION 9**

**TYPE OF ASSISTANCE**

1. Assistance in raising the awareness of national policy-makers as to the importance of effective spectrum management for a country's economic and social development

2. Training and dissemination of available ITU documentation

3. Assistance in developing methodologies for establishing national tables of frequency allocations and spectrum redeployment

4. Assistance in setting up computerized frequency management and monitoring systems

5. Economic and financial aspects of spectrum management

6. Assistance with preparations for world radiocommunication conferences (WRC) and with follow-up and implementation of WRC decisions

7. Assistance with participation in the work of the relevant ITU-R study groups and their working parties

8. Transition to digital terrestrial television broadcasting

9. Assistance in identifying the most efficient ways to utilize the digital dividend

10. Emerging technologies and approaches in using spectrum

11. Innovative ways of spectrum licensing

12. Assistance with interference caused by devices in derogation of national spectrum allocations

13. Assistance in resolving seasonal interference caused by anomalous propagation of radiowaves

14. SMS4DC Training

| **EVENT/Assistance** | **COUNTRY/AREA/ REGION** | **DATE** | **ACTIVITIES/RESULTS** | **WEB LINK** | **TYPE OF ASSISTANCE (see above explanation)** | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| Spectrum Management Seminar for the Caribbean Islands | AMS | Rodney Bay,  Gros Islet, St. Lucia, 2nd – 6th December, 2019 | Provide Member States, Industry players and stakeholders in the Caribbean region the WRC – 19 Results and Outcomes and to highlight any revisions to the Radio Regulations, the international treaty governing the use of the radio-frequency spectrum, Caribbean Spectrum Management Task Force Initiatives, Spectrum Harmonization, Broadcasting Transition, and Spectrum for IOT Deployment and for Emergency Telecommunications.  Caribbean Regional Spectrum Management Workshop Comparative analysis to determine whether existing laws/policies/regulations provide the enabling environment illustrating St. Kitts and Nevis’s readiness for the implementation of broadband technology Draft National Broadband Policy and associated Strategic Implementation Plan | [Event Webpage](https://www.itu.int/en/ITU-D/Regional-Presence/Americas/Pages/EVENTS/2019/24036.aspx) | 1 | 1 | 1 |  | 1 | 1 | 1 | 1 |  | 1 |  | 1 |  |  |
| ITU Consultancy – Special Assistance to Jamaica in Spectrum Management | AMS | October, December 2019 | ITU Consultancy – Special Assistance to Jamaica for the Development of a National Spectrum Licence Framework for Jamaica; review of Jamaica’s current spectrum fee framework in comparison with international leading best practices to assess the current methodologies employed by the Spectrum Management Authority (SMA) and to recommend appropriate and suitable changes and revisions to the spectrum fee framework. |  |  |  |  |  | 1 |  |  |  | 1 | 1 | 1 |  |  |  |
| ITU Forum on Spectrum Management / The Latin-American Telecommunications Congress 2019 co-organized with GSMA LA, CAF and ASIET, and hosted by the Argentinean Administration. One of the plenary sessions to be managed by the ITU | AMS | Cordoba, Argentina  July 1 to 5, 2019 | To introduce issues on the ITU development agenda to a broader audience.  To organize a side event in order to discuss preparatory work towards WRC 19 and spectrum management issues | [Event webpage](https://www.clt.lat/2019/eng/) | 1 |  | 1 | 1 | 1 | 1 |  | 1 | 1 |  |  |  |  | 1 |
| Spectrum management and radio monitoring training program | AMS | 2019 | SMTP online training of modules OM1, OM2 and OM3, through ITU-Academy |  |  | 1 |  | 1 |  |  |  |  |  |  |  |  |  | 1 |
| Follow up and contribution to the preparation process for WRC 2019 as well as promotion of preparedness towards new trends in technology that require an evolution of spectrum management | AMS | 2019 | Countries participated in preparatory process and prepared for WRC 19 Identification of regional and national issues to assist the region/country(ies) in their telecommunication development in the short middle and long term and to start preparations for the next WRC cycle |  |  | 1 |  | 1 |  | 1 |  |  |  |  |  |  |  |  |
| Support on the transition from Analogue to Digital Broadcasting | AMS | 2019 | Analysis of roadmaps developed for the transition from analogue to digital terrestrial television broadcasting |  |  | 1 |  |  | 1 |  |  | 1 |  |  |  |  |  |  |
| Technical assistance to validate, plan and execute the allocation of permits for the use of IMT spectrum and for the use of best practices for increasing Internet penetration in Colombia. | AMS | 2019 | Project to assist, recommend and accompany the Ministry of Information and Communications Technologies to support the planning and execution of the process for granting permits and their assessment for use of the radio spectrum in IMT bands and have referents of analysis on good international practices that have demonstrated its effectiveness in increasing Internet penetration, especially in low-income population segments in accordance with the outstanding experience of the telecommunications industry. |  |  | 1 |  | 1 | 1` |  |  |  | 1 |  | 1 |  |  |  |
| 5th Annual Asia-Pacific Spectrum Management Conference (Enabling DIGITAL futures through SMART Spectrum Management) | ASP | Kuala Lumpur, Malaysia, 12-14 March 2019 | Providing information on BDT activities on Spectrum management and broadcasting. Highlighting the key Agenda Items of WRC-19  () | [Event webpage](https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/Pages/Events/2019/Mar-ASMC19/ASMC-19.aspx) | 1 | 1 |  |  |  | 1 |  |  |  | 1 |  |  |  |  |
| ITU Regional Training Workshop on "Spectrum Management: Strategic Planning and Policies for Wireless Innovation" | ARB | Algiers, Algeria, 1-5 December 2019 | Provide Member States, Industry players and stakeholders in the Arab region insights about the international and national frameworks in which spectrum policy formulation takes place, the trends and reform initiatives which have influenced policy and the principles and the objectives that guide policy decisions as well as the tools used to capture and evaluate information which goes into the development of spectrum policies. | [Event webpage](https://www.itu.int/en/ITU-D/Regional-Presence/ArabStates/Pages/Events/2019/SPP4WI/SPP4WI.aspx) | 1 | 1 |  |  | 1 | 1 | 1 |  |  | 1 |  |  |  |  |
| SMS4DC training | ARB | Somalia, 13-17 March 2019 | Hands on training on SMS4DC software |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ITU Consultancy – Special Assistance to Djibouti on the current situation of the transition to digital broadcasting and the valuation of the digital dividend | ARB | Djibouti  15-16 December 2019 | On request, direct country assistance provided to Djibouti to evaluate the current situation regarding the transition to digital broadcasting, to propose the best way to shift technically and organizationally, including digital transformation frequencies, and to provide a national roadmap. In addition to prepare a study on the technical and economic valuation of the digital dividend in Djibouti. |  |  |  |  |  |  | 1 |  | 1 | 1 |  |  |  |  |  |
| ITU-ITSO Satellite Training Programme for Arab Region | ARB | Algiers, Algeria, 13-17 Oct 2019 | Build capacity within national Administrations to enable the creation of the necessary conditions for the effective development and use of international public telecommunications services. | [Event webpage](https://academy.itu.int/index.php/training-courses/full-catalogue/itu-itso-annual-regional-training-workshop-satellite-communications-arab-region) |  | 1 |  |  |  |  |  |  |  | 1 |  |  |  |  |
| ITU Regional Training Workshop on “Human exposure to Electromagnetic Fields (EMF) & Specific Absorption Rate (SAR)” in the Arab Region | ARB | Amman, Jordan, 2-3 December 2019 | The workshop provided overview on Electromagnetic Fields (EMF) considerations in sustainable environment including its policy, regulatory frameworks and assessments guidelines on Human exposure to EMF. | [Event webpage](https://www.itu.int/en/ITU-D/Regional-Presence/ArabStates/Pages/Events/2019/EMF/EMF.aspx) | 1 | 1 |  |  |  |  |  |  |  | 1 |  |  |  |  |
| Pacific Radiocommunication Workshop 2019 (PRW-19) | ASP | Coral-Coast, Fiji  11-12 April 2019 | Sessions on IoTs, Smart Sustainable cities, WRC-19, IMT-2020 were conducted | [Event webpage](https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/Pages/Events/2019/Apr-PRW19/ppts.aspx) | 1 | 1 |  |  |  | 1 | 1 |  |  | 1 |  |  |  |  |
| ASP CoE training on “Spectrum Management and IMT-2020 Radio Technology Application” | ASP | Harbin, China  17 to 21 June, 2019 | Session on practical issues related to:   * IoTs * Bilateral coordination of terrestrial service and earth stations * 5G frequency planning research and Industry Development updates * Radio Regulation with respect to railway radio communications * Technology and Application of Terrestrial Digital TV broadcasting | [Event webpage](http://itu.int/go/SRMC_Harbin) |  | 1 |  |  |  | 1 | 1 | 1 |  | 1 |  |  |  |  |
| SPECTRUM ENGINEERING AND IMT2020 | ASP | Online  1 – 19 July 2019 | 3 weeks course equally divided into :   * Spectrum Engineering * Type Approval * IMT-2020 | [Event webpage](http://itu.int/go/QQIX) |  | 1 |  |  |  | 1 | 1 | 1 |  | 1 |  |  |  |  |
| Training on SMS4DC | ASP | Vientiane, Lao P.D.R | 10 sessions conducted through internal expertise of RO-ASP to train on latest version i.e 5.1 of SMS4DC | Event [Webpage](https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/Pages/Events/2019/Feb-SMS4DC/main.aspx) | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Assistance on Development of National Type Approval regime for short Range Devices | ASP | Solomon Islands | On request, direct country assistance provided to Solomon Islands for development of National Framework for Type approval of Short Range Devices (SRDs). The outcome report assists in regulating the equipment imported in the country for various uses including amongst others: specific and non-Specific SRDs, RFIDs, Model Remote Control Equipment (e.g. Drones), CB radios, UWB equipment, Cordless phones, Medical Implants (hearing aids etc.) and other P2P and P2MP short range wireless equipment in high frequency bands. | - |  | 1 | 1 |  |  |  |  |  |  | 1 | 1 |  |  |  |
| CoE training on “Human Exposure to Radio Frequency Electromagnetic Fields” | ASP | Johor Baharu, Malaysia  03-05 December 2019 | The training successfully;   * Equipped participants with an understanding of the effect of radio frequency electromagnetic field (EMF) exposure to human and its relation to body tissue dielectric parameters and frequency; * Helped with an understanding of related policies on human exposure to EMF; * Built knowledge to participants with the recent studies on the effect of EMF exposure to human; * Presented case studies on public education campaigns related to EMF exposure | [Event](https://academy.itu.int/training-courses/full-catalogue/human-exposure-radio-frequency-electromagnetic-fields) Webpage | 1 | 1 |  |  |  | 1 |  |  |  | 1 | 1 |  |  |  |
| National Type Approval Framework for short Range Devices | ASP | Vanuatu | The outcome report assists in radio licensing of various short-range devices including amongst others: specific and non-Specific SRDs, RFIDs, Model Remote Control Equipment (e.g. Drones), CB radios, UWB equipment, Cordless phones, Medical Implants (hearing aids etc) and other P2P and P2MP short range wireless equipment in high frequency bands. | - |  | 1 | 1 |  |  |  |  |  |  | 1 | 1 |  |  |  |
| Assistance on updating national RF spectrum fee charging regime | ASP | Mongolia | The outcome report provides detailed methodology on the new spectrum fee calculation method> the suggested formulas include new factors to counter the effect of inflation and the provide incentives on innovation | - |  |  |  |  | 1 |  |  |  | 1 |  | 1 |  |  |  |
| Amendment of the National Law on Frequencies (plus associated amendments to the Law on Telecommunications) and IMT Spectrum Roadmap | ASP | Vietnam | The Authority on Radio Frequency Management (‘ARFM’) through the Ministry of Information and Communications (‘MIC’) of the Socialist Republic of Vietnam has sought assistance from the ITU in relation to proposals to amend the Law on Radio Frequency (No. 42/2009/QH12) and number of important spectrum management related issues. The Viet Nam Telecommunications Authority (VNTA) has also taken the opportunity to seek amendments to the Law on Telecommunications and to address certain policy issues. |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |
| The 4th Annual Sub Sahara Spectrum Management Conference | AFR | Gaborone, Botswana, 27-28 May 2019 | Providing information on BDT activities on Spectrum management and broadcasting | [Event webpage](https://www.itu.int/en/ITU-D/Regional-Presence/Africa/Pages/CrossBorder-Spectrum-Management-Workshop-.aspx) | 1 | 1 |  | 1 |  | 1 |  | 1 |  |  |  |  |  | 1 |
| The PRIDA Initiative ‘Kick-off’ Meeting | AFR | Gaborone, Botswana, 29 May 2019 | Following the status of the PRIDA project and assisting in the Technical Committee | [Event webpage](https://www.itu.int/en/ITU-D/Regional-Presence/Africa/Pages/CrossBorder-Spectrum-Management-Workshop-.aspx) | 1 |  | 1 | 1 | 1 | 1 |  | 1 | 1 |  |  |  |  | 1 |
| Under the PRIDA Project 2 workshops organized on BR Notification back to back with Training on SMS4DC (English and French) | AFR | Monrovia( Liberia) 16 to 20 September and Brazzaville(Congo, 30 Sept. to 4 August) | Notifications exercises for all countries and SMS4DC Training | [Event webpage](https://www.itu.int/en/ITU-D/Regional-Presence/Africa/Pages/CrossBorder-Spectrum-Management-Workshop-.aspx) | 1 |  | 1 | 1 | 1 | 1 |  | 1 | 1 |  |  |  |  | 1 |
| Direct Assistance to Swaziland , Eritrea and Uganda on Spectrum Auctioning/re-farming | AFR |  |  | Reports of experts available |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |
| Spectrum auctioning training and technical assistance to the Zambia Information and Communication Technology Authority (ZICTA) to enhance skills of staff. | AFR | Zambia | ZICTA staff are now able to handle spectrum auctioning. |  | 1 |  |  |  | 1 |  |  |  |  |  |  |  |  |  |
| 3rd Annual Spectrum Management Conference for CIS and Central and Eastern Europe | CIS/EUR | Minsk, Belarus, 8-9 April 2019 | Provided information on BDT and BR activities on spectrum management. Facilitated WRC-19 preparation through inter-regional discussions (RCC, CEPT and APT present) | [Event webpage](https://eu-ems.com/agenda.asp?event_id=4392&page_id=9927) | 1 | 1 |  |  | 1 | 1 |  | 1 |  | 1 |  |  |  |  |
| Workshop “How to achieve interference free communication at the current technological stage” | CIS/EUR | Minsk, Belarus, 10-11 April 2019 | Analyzed in depth how to achieve interference free communication, improve cross border coordination and ensure efficient radio monitoring | [Event webpage](https://www.itu.int/en/ITU-D/Regional-Presence/CIS/Pages/EVENTS/2019/04_Minsk/04_Minsk.aspx) | 1 | 1 |  |  |  |  |  |  |  |  |  | 1 |  |  |
| ITU-GSMA Workshop "Impact of mobile in Eurasia: Spectrum Policies for the Long Term" | CIS | Moscow, Russia,  9 October 2019 | Facilitated dialogue between policy makers/regulators on spectrum policy | [Event webpage](https://www.mobile360series.com/eurasia/agenda/spectrum/) | 1 |  |  |  | 1 |  |  |  |  |  |  |  |  |  |
| ITU Regional Radiocommunication Seminar 2019 for African Region (RRS-19-Africa) | AFR | Johannesburg, South Africa, 13-17 May 2019 | Capacity building on RR and NFAT; stations notifications procedures; WRC cycles | [Event webpage](https://www.itu.int/en/ITU-R/seminars/rrs/2019-Africa) | 1 | 1 | 1 |  |  | 1 |  |  |  |  |  |  |  |  |
| ITU Regional Radiocommunication Seminar 2019 for CIS and neighbouring countries, | CIS | Tashkent, Uzbekistan, 10-14 June 2019 | Capacity building on RR and NFAT; stations notifications procedures; WRC cycles | [Event webpage](https://www.itu.int/en/ITU-R/seminars/rrs/2019-CIS) | 1 | 1 | 1 |  |  | 1 |  |  |  |  |  |  |  |  |
| ITU Seminar on Radiocommunication Matters for Europe (SRME-19) | East Europe | Tirana, Albania, 24-27 June 2019 | Capacity building on RR and NFAT; stations notifications procedures; WRC cycles | [Event webpage](https://www.itu.int/en/ITU-R/seminars/rrs/2019-Europe) | 1 | 1 | 1 |  |  | 1 |  |  |  |  |  |  |  |  |
| Technical Assistance to INDOTEL | Central America | Sto Domingo, Dominican Republic, 2019 | National Spectrum Policy; National Spectrum Management Master Plan |  | 1 |  | 1 | 1 | 1 | 1 |  | 1 | 1 | 1 | 1 |  |  |  |
| Workshop on the Future of Television in Europe | Europe | Geneva, Switzerland, 7 June 2019 | This workshop focused on the diverse emerging broadband and broadcast technologies, including cable TV.  The outcomes of the workshop advance implementation of the European Regional Initiative aiming at assisting countries in need of Cable TV related matters, and bridge the requirements and needs of the various countries with the standards community | [Event webpage](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20190607/Pages/default.aspx) |  |  |  |  |  |  |  | 1 |  | 1 |  |  |  |  |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_