

**National
Preparations for WRC 2023**

**Wireless Planning and Coordination Wing
Department of Telecommunications
Ministry of Communications
06.12.2022**

Agenda

1. Importance of National Studies
2. National Preparatory Committee for WRC-23 (NPC)
 - i. Structure
 - ii. Working Groups
 - iii. Responsibilities
 - iv. Contribution to APG 23-4
 - v. Work Plan
3. Regional Harmonisation
4. ITU-R Timeline

Importance of National Studies

Protection of existing users:

- Example: Based on sharing and compatibility studies WRC-19 decided protection conditions on the new identified IMT services in mm waves 26 GHz/40 GHz bands such as -out of band power limits to protect existing earth exploration services in adjacent band, in band emission restrictions to protect existing fixed satellite services

Accommodate potential new applications:

- Example: WRC-19 identified new additional spectrum for applications such as- Earth Stations in Motion (ESIMs) operating in land, air and water; High Altitude Platform Stations (HAPS); regulatory measures to protect hoarding of spectrum and blocking of orbits by NGSO mega constellations

Importance of National Studies

The fallout of creating new applications:

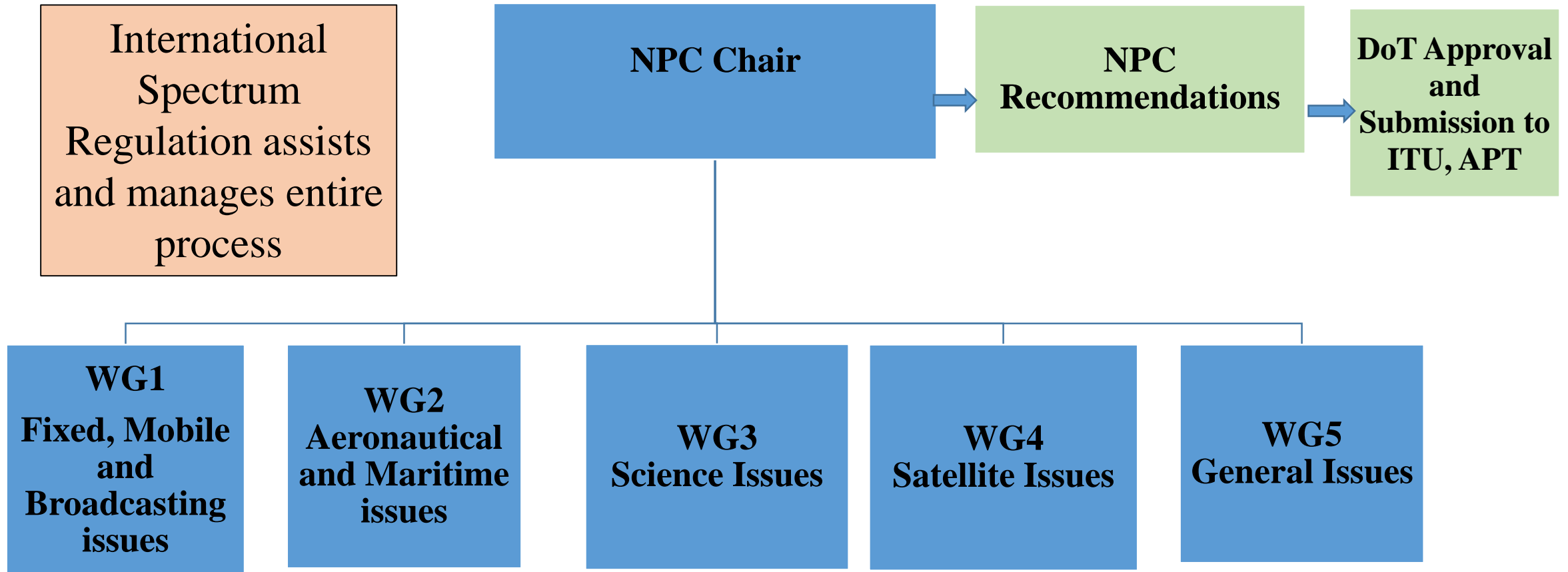
- The conflicts between terrestrial services versus satellite services in the different radio frequency spectrum bands are often borne out of sharing concerns. The interests of all stakeholders are to be protected when new applications are to be accommodated along with the existing services.

Impact of new regulations:

- Considering the unprecedented growth of 5G technology that came with the identification of new frequency bands in the last WRC, it is important to forestall the potential technology areas that are going to make an impact in the WRC-23. Any new regulations that are going to be created will be spearheaded by the major technological corporations which are the ITU Sector members and would be steamrolled by the Administrations of the respective countries that support those sector members.



NPC for WRC 2023



Stakeholder consultations and participation

All major radio frequency spectrum users viz. Government departments, telecom industry, operators, associations, telecom equipment manufacturers, academia, research and development institutions, wireless users etc.

Structure of NPC for WRC-23

National Preparatory Committee for WRC 2023 (NPC)- Chair Sh. V.J. Christopher, WA

NPC WGs	Chairmen (Name, Designation, Email)	Topics (WRC 2023 Agenda Items)
WG-1	Sh. MPS Alawa, Sr. DWA ms.alawa@nic.in	Fixed, Mobile and Broadcasting issues (1.1, 1.2, 1.3, 1.4, 1.5, 9.1 (c), Article 21.5)
WG-2	Smt. M. Revathi, Sr. DWA m.revathi@nic.in	Aeronautical and maritime issues (1.6, 1.7, 1.8, 1.9, 1.10, 1.11)
WG-3	Sh. Ajay Singhal, Sr.DD singhal.ajay@nic.in	Science issues (1.12, 1.13, 1.14, 9.1(a) and 9.1 (d))
WG-4	Sh. M.K. Pattanaik, Sr. DWA pattanaik.mr@gov.in	Satellite issues (1.15, 1.16, 1.17, 1.18, 1.19, 7)
WG-5	Sh. Anil K. Soni, Sr. DD anilk.soni@nic.in	General issues (2, 4, 8, 9.1 (b) and 10)

NPC Responsibilities

Five working Group(WG) as per five CPM23 chapters

Consider the existing users, future interests, ITU Radio Regulations(RR), ITU-R Report, ITU studies

Input contributions from stakeholders and discussions to update/form the national views

Submit progress reports/recommendations/draft contributions to DoT

Contributions to APG 23-4

PRELIMINARY VIEWS ON WRC-23 AGENDA ITEMS

- **WP1: Fixed, Mobile and Broadcasting Issues: 1.2, 1.3, 1.4, 1.5, 9.1 TOPIC C, 21.5**
- **WP2: Aeronautical and Maritime Issues: 1.7, 1.9 AND 1.10**
- **WP3: Science Issues: 1.12, 1.13, 1.14, 9.1 (TOPIC A) & 9.1 (TOPIC D)**
- **WP4: Satellite Issues: 1.16, 1.17, 1.18, 1.19**
- **WP5: General Issues: 2, 4 & 9.1 (TOPIC B)**

NPC Work Plan 2023

Year	DoT activity	ITU-R/ APT Event	ITU-R/ APT Event Dates	Outcomes
2023	4th NPC meeting January February 2023	ITU Publishes Draft CPM Report	January 2023	<ul style="list-style-type: none"> • NPC deliberations on brief about ITU-R studies for each Agenda Item • Methods and Options for Agenda Items • Update to WGs • Review outcomes of APG 23-4 meeting • Update Preliminary views • NPC Stakeholder meeting, invites contributions for APG 23-5 • MoM publish by 1st/2nd week of February 2022
	5 th NPC Meeting April/May 2023	APG23-5	Jan/Feb 2023, Rep. of Korea	<ul style="list-style-type: none"> • Review the draft CPM Report on WRC-23 Agenda Items • Develop the contributions of APT to CPM23-2 • Update APT Preliminary Views on WRC-23 Agenda Items on WRC-23 Agenda Items
	DoT delegation participation (advocating views finalised by 5 th NPC meeting)	CPM 23-2 Meeting	27 March 2023 to 06 April 2023 Geneva, Switzerland	<ul style="list-style-type: none"> • Contributions for any modifications in methods and options • Additional text about ITU-R studies
	6 th NPC July 2023	APG23-6	July/Aug 2023	<ul style="list-style-type: none"> • Develop Preliminary APT Common Proposals (PACPs) on WRC-23 Agenda Items • Develop PACPs for RA-23
	7 th NPC September 2023	India views on PACPs	APT Circulates PACPs to all member administrations	<ul style="list-style-type: none"> • APT decides views based on majority • APT common proposals forwarded to ITU for WRC 23 • APT common proposals (ACP) have good weightage at WRC 23
	8 th NPC before WRC 23	RA 23 and WRC 23	October/November 2023, UAE	<ul style="list-style-type: none"> • Develop Indian contributions for RA 23 and WRC 23 • Draft Participation Plan for WRC-23 • Strategy for WRC 23 • Assignment of WRC 23 duties

STAKEHOLDERS INVOLVED

S. No.	Name of Stakeholder	Category
1	Ministry of Defence	Government Bodies
2	Department of Space	
3	Ministry of Information and Broadcasting	
4	Ministry of Home Affairs	
5	Ministry of Railways	
6	Ministry of Civil Aviation	
7	Ministry of Shipping	
8	Radio Astronomy, NCRA GMRT	
9	Cellular Operators Association of India	Associations
10	Broadband India Foundation	
11	Telecom Equipment Manufacturers Association	
12	GSMA	
13	Global Suppliers Association (GSA)	
14	ITU APT Foundation of India (IAFI)	
15	Internet Service Provider Association (ISPAI)	
16	Indian Space Association (ISpA)	
17	Satcom Industry Association (SIA)	
18	Global Satellite Coalition (GSC)	Manufacturers/Service Providers
19	Motorola	
22	Nokia	
23	Ericsson	
24	Samsung	
25	Apple	
26	Intel	
27	Qualcomm	
28	Inmarsat	
29	Hughes	
30	OneWeb	
31	Facebook	
32	Google	
33	TSDSI	
34	TEC, DoT	
35	IISC, IIT Kanpur, IIT Chennai, IIT Mumbai, IIT Delhi and other IITs	Academia
36	National Institute of Amateur Radio	Amateur Services

New stakeholders are continuously added in list

WRC-23 through APG-23

- India among Asia Pacific: Efforts to align with the common views of APT towards a regional harmonisation, harmonization of views within APT is important.
- APT Preparatory Group (APG-23) is tasked with:
 - inviting contributions from its thirty-eight (38) member states
 - formulating APT Preliminary views on WRC 23 agenda items
 - finalizing APT Common Proposals for WRC-23.
- Harmonisation among the APT countries. Approaches for Region 1 and Region 2 specific issues. Further, the views shall be advocated at WRC-23.



Overview of the ITU-R Calendar towards WRC-23

Year	January – March	April – June	July – September	October – December
2019	CPM19-2	Last meetings of the Responsible Groups	WS on WRC-19	RA-19 WRC-19 CPM23-1
2020	WP 5D (1 st)	WPs 7B & 7C (1 st) WP 4C+WP 4A (1 st)	WPs 5A, 5B & 5C (1 st) WPs 7B & 7C (2 nd)	WP 5D (3 rd) TG 6/1 (1 st) WP 4C+WP 4A (2 nd) WPs 5A, 5B & 5C (2 nd) WP 5D (4 th) CPM-23 Steering WRS-20
2021	WP 4C+WP 4A (3 rd) WP 5D (5 th)	WPs 7B & 7C (3 rd) WPs 5A, 5B & 5C (3 rd) WP 5D (6 th)	TG 6/1 (2 nd) WP 4C+WP 4A (4 th) WPs 7B & 7C (4 th)	WP 5D (7 th) WP 4C+WP 4A (5 th) TG 6/1 (3 rd) WPs 5A & 5C (4 th) WP 5B (4 th) 1 st WS on WRC-23
2022	WP 5D (8 th) TG 6/1 (4 th) [WP 5B (5 th)]	[WPs 7B & 7C (5 th)] [WP 4C+WP 4A (6 th)] [WPs 5A & 5C (5 th)] [WP 5D (9 th)] [5D-WG Spectrum]	[WP 5B (6 th)] [TG 6/1 (5 th)] [WP 4C+WP 4A (7 th)] [WPs 7B & 7C (6 th)] [WP 5D (10 th)]	[WPs 5A, 5C (6 rd) & 5B (7 th)] we are here [CPM-23 Manag ^{nt} Team] [2 nd WS on WRC-23]
2023	[Meetings of the Responsible Groups]	[CPM23-2]	[Last meetings of the Responsible Groups] [3 rd WS on WRC-23]	RA-23 WRC-23

[...] = planned meetings

WS on WRC-23 = ITU Inter-regional Workshop on WRC-23 Preparation

THANK YOU

Important Events

APG 23-5
Busan, Rep of
Korea
20-25 Feb 2023

[APG webpage](#)

ITU-R Meetings
ITU Inter-regional
Workshops on WRC-
23 Preparation
27-29 Sep 2023

[Calendar of Events](#)

CPM23-2
Switzerland
27Mar - 6Apr 2023

[CPM23-2 webpage](#)

RA-23 & WRC-23
United Arab Emirates
13 Nov – 15 Dec 2023

[WRC-23 webpage](#)

