

ICTS FOR DISASTER

SPECTRUM MANAGEMENT

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DISASTER MANAGEMENT - A SPECTRUM PERSPECTIVE

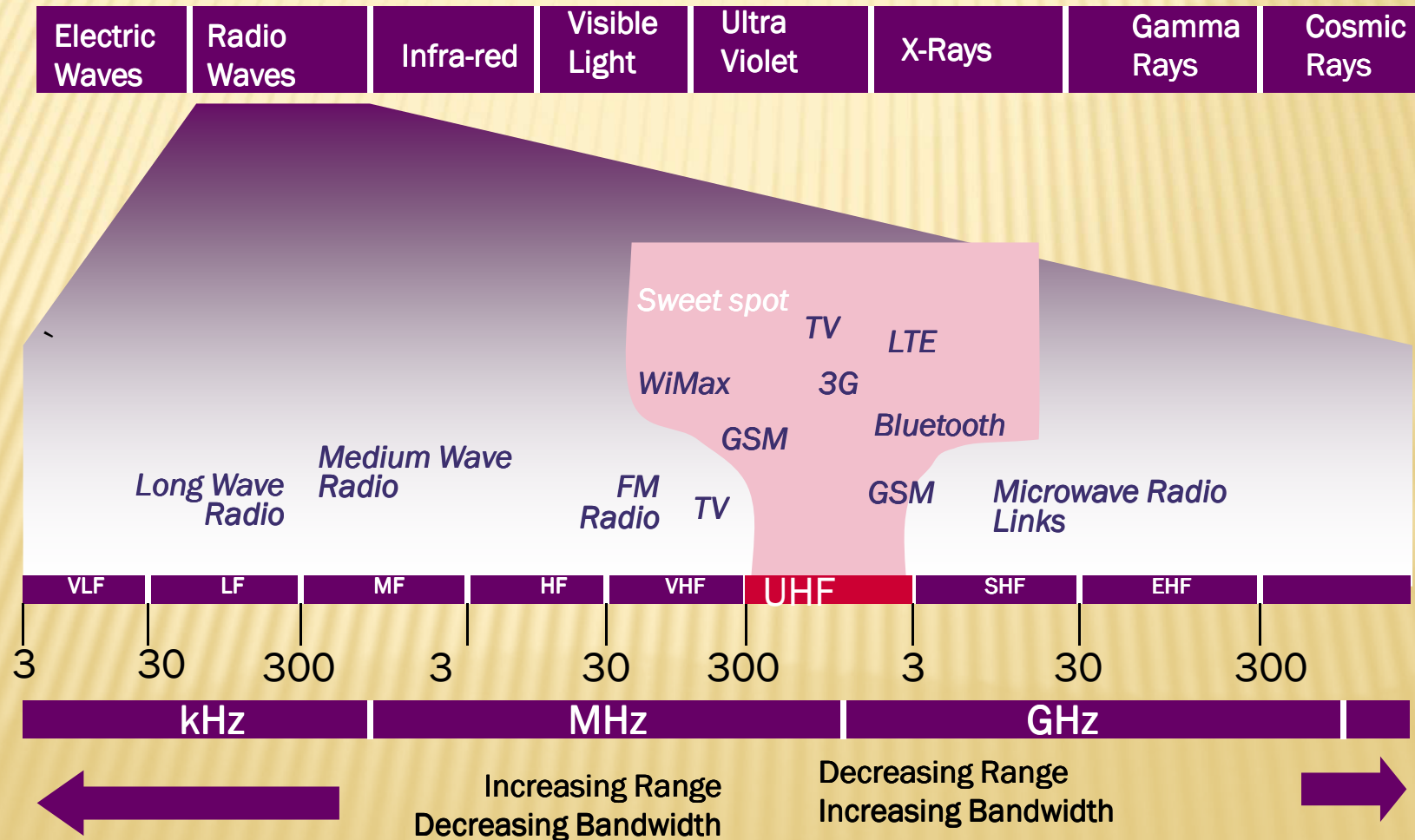
Aims of this Presentation

- Radio Spectrum Management at international and national levels
- Zimbabwe institutional and regulatory framework
- The role and missions of POTRAZ with respect to Public Protection and Disaster Relief

RADIO FREQUENCY SPECTRUM

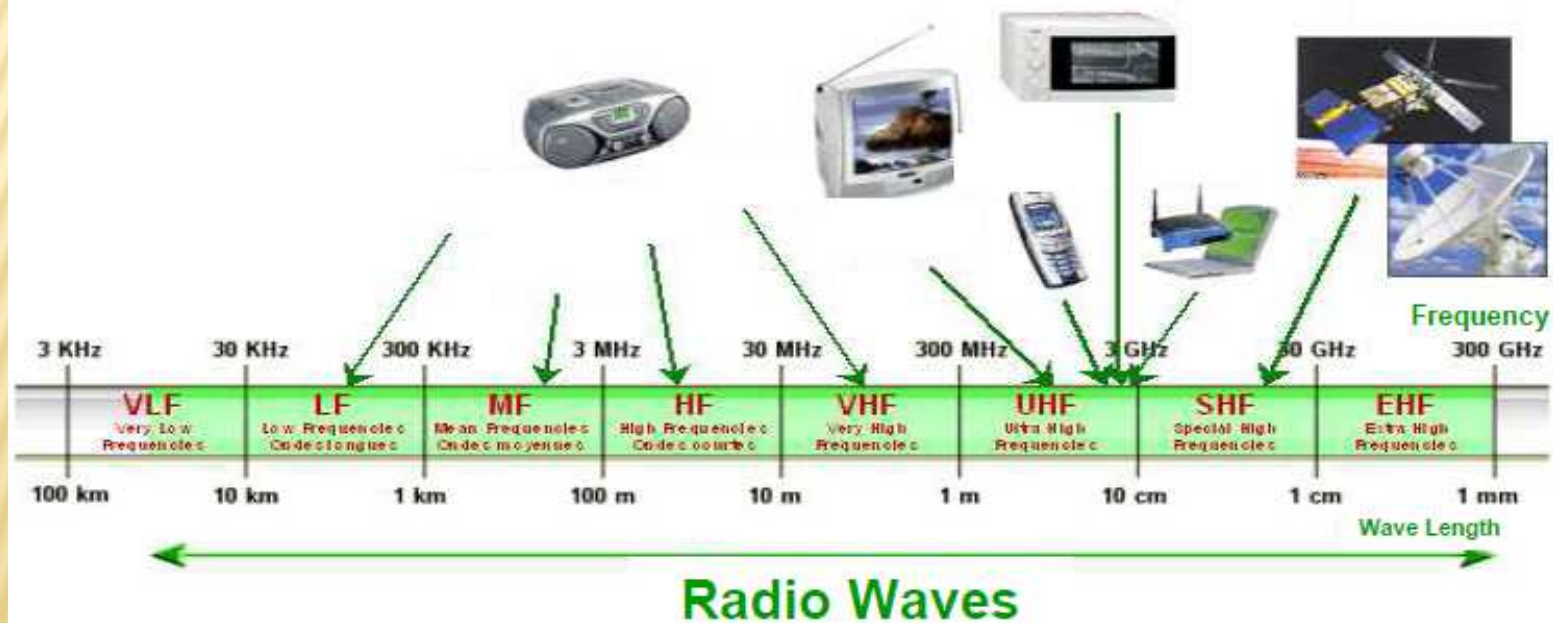
- Part of the electromagnetic spectrum whose wavelength falls between the electric waves and Infra- red. (9KHz – 300GHz currently usable)
- Better known as the Radio Waves.
- Capable of propagating in various media including free space, vacuum and dense air.
- Capable of information carrying through a process of modulation.
- Refraction, reflection, diffraction, absorption and Interference are important aspects.

STRATEGIC PLANNING- A SPECTRUM PERSPECTIVE



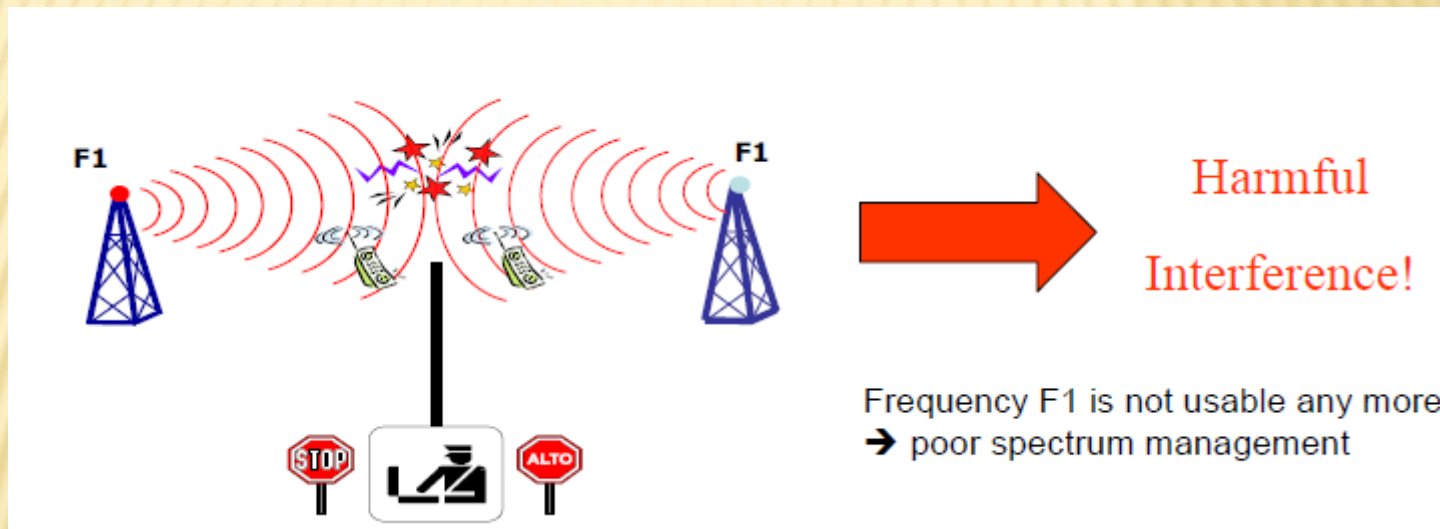
STRATEGIC PLANNING- A SPECTRUM PERSPECTIVE

Spectrum Every Day Life Use



STRATEGIC PLANNING- A SPECTRUM PERSPECTIVE

WHY REGULATE SPECTRUM?



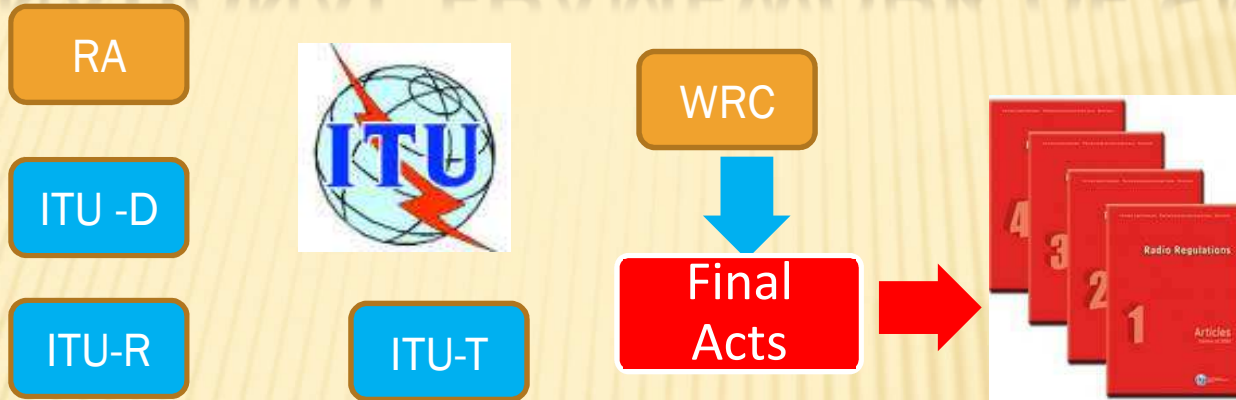
- Equitable Access to Spectrum
- Make Spectrum as widely available as possible
- Orderly development anchored on efficient utilization.
- Maximize public benefit

SPECTRUM MANAGEMENT DEFINED

- A combination of technical, economic, scientific and administrative efforts directed at ensuring orderly development of radio communication systems and optimal utilisation of radio frequency spectrum.

INTERNATIONAL FRAMEWORK OF SM

Worldwide



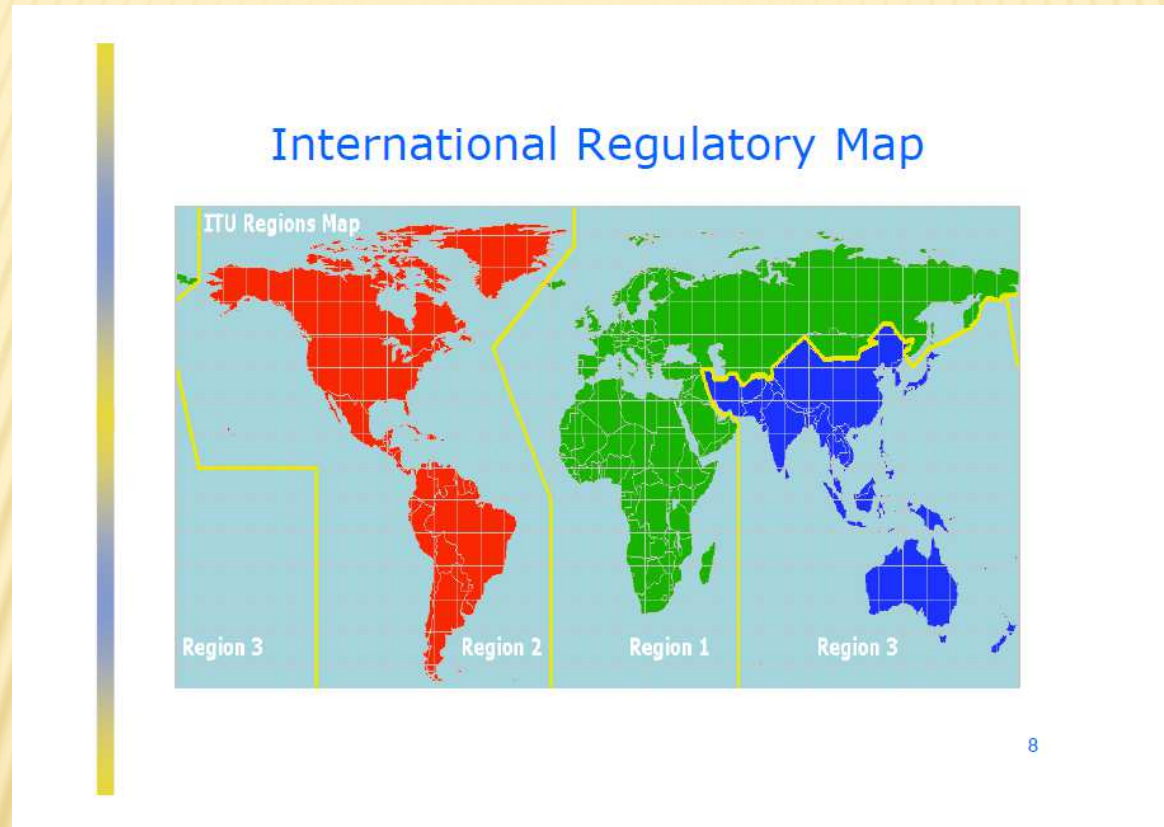
Regional



National



INTERNATIONAL PERSPECTIVE



ITU Radio Regulations harmonise allocations at a broad level - eg fixed, mobile, broadcasting and this done on a regional basis

THE ZIMBABWEAN PERSPECTIVE

- ✘ Postal and Telecommunication Act [Cap 12:05]
- ✘ Government: Policy Maker whose mandate includes promulgation of statutes
- ✘ POTRAZ: Statutory Body with stewardship over spectrum
- ✘ BAZ: Responsible for Broadcasting, stewardship of Broadcasting spectrum conferred through an MOU.

PRINCIPLES OF ALLOCATION

- Frequencies are a common resource, which is
 - + common property
 - + scarce
 - + limited
 - + more and more in demand
- Closely align with ITU R1 Allocations in order to benefit from global/regional harmonisation efforts

POTRAZ OBJECTIVES ON SPECTRUM MANAGEMENT

- ✘ Ensure orderly development of wireless systems in Zimbabwe.
- ✘ Ensure the rational and equitable distribution of the radio spectrum resource across all relevant radio communication services.
- ✘ Maximisation of the economic value & public benefit
- ✘ maximising technical efficiency, taking into account local economic and environmental factors.
- ✘ Relentlessly protect legitimate radiocommunication systems and assignments against harmful interference.

Service	Band	Bandwidth
Radio Broadcasting	88MHz – 108 MHz	20MHz
Terrestrial TV (VHF)	174MHz -254MHz	76MHz
Terrestrial TV (UHF)	470MHz - 790 MHz	320
‘Digital Dividend’	790 MHz - 860MHz	70MHz
GSM 900	890MHz – 915MHz pw 835MHz – 960MHz	25 MHz
UMTS	1920 – 1980 MHz pw 2110 - 2170 MHz	60MHz FDD
Meteorological (SS)	Various	Per ITU R1 and SADC RFP
FSS	Various	ITU R1 and SADC RFP
MSS	Various	ITU R1 and SADC RFP
GPS	Various	Per ITU
Land Mobile	HF, VHF, UHF (various)	Per SADC RFP
Fixed	Various	Per SADC RFP
Amateur	Various	Per ITU-R RFP

LICENSING PROCESS

- ✘ Licence Exempt Bands: 2.4GHz, 5GHz (802.11)
 - + Equipment Type Approval a prerequisite.
 - + Full compliance with set standards for the bands.
 - + Option of higher power levels for rural areas being looked at.
- ✘ Licensed Band:
 - + Requirement for Type Approval
 - + Operation without a license is illegal, section 34 applies.
 - + Process is flexible and can be expedited during emergencies
 - + Some bands and channels set aside for possible PPDR systems e.g. 380MHz – 387MHz pw 390MHz – 397MHz

SATCOM CRITICAL FOR DR



RASCOM- A GREAT OPPORTUNITY FOR AFRICA



Thank You