

CHAPTER ONE

INTRODUCTION

- 1.0 The Government of the Federal Republic of Nigeria is aware of its primary responsibility and role as the custodian of the nation's natural resources of which radio frequency spectrum is one. This resource has in recent times assumed greater economic value as a result of its direct application in telecommunications, broadcasting, industry, healthcare delivery and scientific research. In addition to its direct use in these sectors, spectrum-based applications have become important inputs to a range of other socio-economic activities such as security, defence, social services, education, transportation, etc. Consequently, a very large industry has developed around radio spectrum resource. Spectrum-based services have continued to yield economic benefits through employment generation, increased productivity, rural integration and capacity utilisation thus contributing to Gross National Product. Since radio wave propagation does not respect geographical and political boundaries, spectrum issues have security implications and impacts on international relations.

The demand for spectrum resource is on the increase and will continue to be so in the foreseeable future with the rapid evolution and application of new radio technologies and services.

These crucial factors therefore, make it mandatory for the government to develop comprehensive and clear-cut policies that will ensure that spectrum resource is optimally utilised for the overall benefit of the nation. Government will therefore continue to adopt policies that will ensure that this scarce resource is well managed.

CHAPTER TWO

OBJECTIVES OF RADIO FREQUENCY MANAGEMENT

2.0 The Objectives of radio frequency management are to:

- (a) Promote and support the orderly development and efficient operation of radio communication systems and services to meet Nigeria's sovereignty and security needs as well as to yield economic, cultural and social benefits for Nigerians;
- (b) Plan the utilization and manage the spectrum resource in accordance with law, policy objectives, international agreements and through continuous review and improvement of the spectrum management process;
- (c) Ensure efficient and optimum use of frequency spectrum resource through the adoption of advanced spectrum allocation and management techniques based on operational requirements and technical viability;
- (d) Encourage the use of spectrum for educational advancement of the populace, realization of universal access and services initiatives, rural integration and conservation of natural resources;
- (e) Ensure that national interests are protected when harmonizing and coordinating Nigeria's spectrum policies and utilisation with other countries, regional and international organizations and with treaty obligations, including those of the International Telecommunications Union (ITU);
- (f) support and promote innovation, research and development in new radio communication techniques, spectrum-based services and applications;
- (g) ensure equitable and fair allocation and assignment of spectrum so as to benefit maximum number of users; and

CHAPTER THREE

FUNCTIONS RELATING TO RADIO FREQUENCY SPECTRUM MANAGEMENT

3.0 To achieve the set down objectives for frequency spectrum management, the following functions are to be performed by the various organs of government responsible for frequency management:

(a) ***Spectrum Planning:***

Plan the national spectrum in order to make adequate provision for various services based on their relative importance to Nigeria's socio-economic and security goals and to constantly forecast for future requirements.

(b) ***Licensing:***

Develop effective rules, operational procedures and guidelines for the purpose of regulating the use of spectrum in order to encourage sharing and ensure that specified level of interference is not exceeded.

(c) ***Technical Specifications:***

Define technical utilisation rules and specifications for all equipment types whose operation will require the use of frequency spectrum, administer radio transmission and reception as well as grant approvals and authorisations when the stipulated conditions have been satisfied.

(d) ***Enforcement:***

Develop and implement enforcement procedures and sanctions for the violation of spectrum laws and regulations in order to maintain discipline and effective utilisation of the frequency spectrum.

(e) ***Monitoring:***

Monitor the use of the spectrum in order to resolve problems arising from interferences, adequately evaluating occupancy levels, take corrective measures when necessary and provide feedback information for the management of spectrum.

(f) ***Liaison (Local and International):***

Maintain close co-operation with all stakeholders in the industry such as operators, regulatory bodies, manufacturers, ITU, professional groups, security agencies and the general public.

CHAPTER FOUR

STRUCTURAL FRAMEWORK FOR RADIO FREQUENCY SPECTRUM MANAGEMENT:

- 4.0 The Radio Frequency Spectrum shall be managed by the following organs of government:
- (a) Ministry of Communications (MOC);
 - (b) National Frequency Management Council (NFMC);
 - (c) Nigerian Communications Commission (NCC);
 - (d) National Broadcasting Commission (NBC).

MINISTRY OF COMMUNICATIONS (MOC):

- 4.1 The Ministry shall be the custodian of all frequencies in Nigeria and shall:
- (a) Liaise with ITU, sub-regional, regional and international telecommunications organizations for the purpose of representing Nigeria's interest;
 - (b) Serve as the Secretariat of the NFMC.
 - (c) Manage and assign frequencies to government and its agencies, security services and diplomatic missions;
 - (d) Provide assignment data to the NFMC at regular intervals;
 - (e) Manage and co-ordinate internationally assigned frequencies.
 - (f) Carry out monitoring and enforcement procedures in the various frequency bands as may be deemed necessary and reporting such details to the NFMC at regular intervals;
 - (g) Monitor, co-ordinate and keep track of radio signals from space or foreign countries for possible breaches of our national laws and violations of the international telecommunication convention and reporting such breaches or violations to the appropriate organs of ITU.

NATIONAL FREQUENCY MANAGEMENT COUNCIL (NFMC):

4.2 The NFMC shall be responsible for:

- (a) Planning the national radio frequency spectrum in consultation with the other organs of Government charged with frequency management in accordance with international best practices;
- (b) Keeping a National Master Register of Frequency assignments;
- (c) Allocating and coordinating bulk frequency to the organs of government involved with the management of frequency spectrum;
- (d) Publishing from time to time Frequency Allocation Tables and Frequency Utilization Tables;
- (e) supervising all the organs of government responsible for the assignment of frequencies including conflict resolution;
- (f) Promoting research on radio propagation;
- (g) Facilitating the achievement of interference-free operation of wireless systems; and
- (h) Proposing policy options and recommending to Government such measures as legislation, fiscal incentive, etc.

NIGERIAN COMMUNICATIONS COMMISSION (NCC):

4.3 The functions of the NCC shall include the following:

- (a) Planning, management and monitoring the usage of the frequency spectrum allocated to it;
- (b) Assignment of frequencies to non governmental telecommunications users excluding broadcast frequencies.
- (c) Performing of enforcement procedures on the various frequencies assigned to ensure compliance with technical standards and administrative procedures.
- (d) Development and publication of radio frequency regulations and standards for the telecommunications industry;

- (e) Compiling and updating of a computerised data-base of all radio frequencies assigned by the Commission; and
- (f) Providing assignment data to the NFMC at regular intervals or on demand;

NATIONAL BROADCASTING COMMISSION (NBC):

4.4 The functions of the NBC shall be as follows:

- (a) Planning, management and monitoring the usage of the frequency spectrum allocated to it;
- (b) Assignment of broadcast frequencies to commercial, private and government users;
- (c) Performing of enforcement procedures on all frequencies assigned for broadcast purposes to ensure compliance with technical standards and administrative procedures.
- (d) Development and publication of radio frequency regulations and standards for the broadcasting industry;
- (e) Compiling and updating of a computerised data base of all radio frequencies assigned by the Commission; and
- (f) Providing assignment data to the NFMC at regular intervals or on demand;

ENABLING ACT

4.5 The composition, functions, structure, operational guidelines and other related matters shall be provided for in the enabling Act governing the use of telecommunications facilities by various government organs.

CHAPTER FIVE

POLICY GUIDELINES

5.0 The following guidelines shall apply to frequency spectrum management in Nigeria:

SPECTRUM FEES:

5.1 In respect of spectrum fees;

- (a) All users of frequency spectrum shall pay appropriate fees, except where a waiver is granted for emergency services, security or for scientific research. The Chairman on the advice of the Council may grant a waiver, to humanitarian organisations, universities and such institutions that may be considered by the Council;
- (b) The fees paid for frequency spectrum should cover all costs associated with frequency spectrum management and in the case of commercial frequency spectrum, fees paid should in addition to meeting management costs, generate moderate revenue for government to compensate for the use of the national resource by allottees;
- (c) The various regulatory agencies charged with the responsibility for the assignment of frequency spectrum to end-users shall determine the appropriate fees to be paid in consultation with the Honourable Minister of Communications;
- (d) The appropriate fees for frequency spectrum could also be determined by employing other methods including auctions, lotteries, etc.

ACCESS TO RECORDS:

All records relating to frequency allocation and assignments are classified documents whose contents can only be released to third parties with the express approval of the Honourable Minister of Communications. Unauthorised disclosure would amount to violations of the Official Secrets Acts.

PUBLIC CONSULTATIONS

5.2 In frequency spectrum policy formulation, there should be public consultation with stakeholders. Inputs from such consultations shall be acknowledged and assessed to ensure that relevant public interests are adequately represented.

ELIGIBILITY FOR THE ISSUANCE OF SPECTRUM LICENCES:

- 5.3 The following persons shall be eligible to be issued licences as spectrum users having fully complied with the requirements for such licences as laid down by MOC, NCC, NBC or other authorised organs of government.
- (a) A citizen within the meaning of the Constitution of the Federal Republic of Nigeria;
 - (b) A permanent resident within the meaning of the Constitution of the Federal Republic of Nigeria;
 - (c) A non-resident who has been issued with an employment authorisation under the Immigration Act Cap. 141 LFN 1990;
 - (d) A company registered in Nigeria under the Companies and Allied Matters Act Cap. 59 LFN 1990;
 - (e) A non-governmental organisation, institution and agency registered in Nigeria;
 - (f) Any Government in the Federation whether Federal, State, Local or any Government agency
 - (g) The Government of any country other than Nigeria which is a signatory to the Vienna Convention on Diplomatic Relations 1961;
 - (h) The registered owner in Nigeria of an aircraft for the establishment and operation of a station on board the aircraft;
 - (i) The registered or licenced owner of a ship or vessel which is registered under the Nigerian Shipper's Council Act Cap. 327 LFN 1990 for the establishment and operation of a station on board the ship or vessel; and
 - (j) The resident of any country other than Nigeria who requires a radio licence for radio apparatus used for a special event for a limited duration.

OBJECTIVES FOR SPECTRUM ASSIGNMENTS :

- 5.4 All frequency spectrum assignments shall be administered in order to achieve among others the following objectives:

- (a) Assisting private, corporate and government agencies to achieve their desired objectives and missions by providing them the medium for effective communications
- (b) Efficient usage of frequency spectrum;
- (c) Fair sharing of frequency spectrum to enhance optimal utilisation and
- (d) Achieving interference-free communications.

DESIGNATION OF USAGE:

- 5.6 To promote efficient and optimal utilisation, frequency spectrum allocation and assignments shall be designated on the basis of usage, rather than to specific users in order to ensure access among wider number of users.

SPECTRUM SHARING

- 5.7 Sharing among various services and users will also be encouraged in order to satisfy the growing needs for frequency spectrum resource.

INTERFERENCE-FREE OPERATION :

- 5.8 The effects of interference shall be minimized or managed to acceptable limits and any user of frequency spectrum who interferes with another user shall be sanctioned if the reason for the interference in the assessment of the licensing authority is within the control of the operator. All licenced users experiencing interferences are required to report such interferences to the appropriate authorities that assigned the frequencies to them.

COMPLIANCE WITH STANDARDS:

- 5.9 Technical standards and frequency plans will be enforced to ensure orderly development, avoid harmful interference and facilitate operational compatibility of radio systems. The NFMC shall co-ordinate and enforce these technical standards in conjunction with the MOC, NCC and NBC.

SPECTRUM PRIORITIES:

- 5.10 Services involving security, safety of life, property and the sovereignty of Nigeria shall be accorded priority in allocation of frequency spectrum.

RELOCATION OF USERS:

- 5.11 An allottee or user may be moved from one part of the spectrum to another due to overriding public interest or for the purpose of clearing a spectrum space for new services. Fair treatment and adequate notice shall be considered in all cases. However, financial compensation, if any, arising from the relocation shall be at the discretion of the licensing authority.

DISPLACEMENT OF SERVICES:

- 5.12 A frequency spectrum licence does not confer ownership or permanent assignment rights to the user, therefore future reassignment or service displacement shall be made where appropriate.

NON-FEE PAYING BANDS:

- 5.13 The non-fee paying bands shall comprise the following:

(a) ***Industrial, Scientific and Medical (ISM) Band:***

To encourage research into frequency spectrum usage and innovation in line with ITU recommendations, non-fee paying bands will be allocated and demarcated to be used for Industrial, Scientific and Medical applications. The users of these bands are expected to abide by the regulations guiding its usage as may be prescribed by MOC from time to time such as power limits, equipment standards, and prohibition of usage for commercial purposes, etc.

Amateur Bands:

- (b) Frequency bands for Radio Amateurs shall be reserved for private research and radio hobbyists in line with ITU Recommendations. Individuals wishing to set up and operate amateur radio stations shall be required to obtain operating licence and possess minimum technical skills and knowledge in radio engineering. The Nigeria Amateur Radio Society shall be responsible for monitoring, testing and enforcing regulations in the amateur bands. Regulations guiding its usage shall be as prescribed by the MOC.

Citizens Band:

- (c) A sub-allocation shall be made in the land mobile service for citizens band radio in order to allow for private ownership of radio. Regulations guiding its usage shall be as prescribed by the MOC.

The users of these bands are expected to abide by the regulations guiding its usage and must therefore apply for licences/permission and get approval prior to the commencement of their operations. Other frequency bands for safety, marine, etc may be used as specified by ITU.

SPECTRUM ASSIGNMENT PROCEDURE:

- 5.14 Assignment of frequency channels or slots to end-users shall be on a first-come-first-served basis for non-commercial frequencies. While for commercial frequency assignment, it shall be on the basis of competitive licensing processes to be determined by the relevant regulatory authority and adopted in the event that available spectrum is inadequate to satisfy demand or where it is necessary to limit the number of operators or new entrants.

DURATION OF FREQUENCY LICENCES:

- 5.15 Government will encourage long-term frequency licences in order to ensure higher tenure security for investors to facilitate long-term planning. The specification of the maximum duration of a licence shall be at the discretion of the licensing authority.

RENEWAL OF LICENCES:

- 5.16 A frequency spectrum licence does not confer ownership or permanent assignment rights to the user, consequently all frequency licences are subject to renewal at such intervals as may be specified in the licence. However, renewal of frequency licence is not automatic as the relevant licensing authority reserves the right not to renew a licence when it expires. All renewal processes must be completed and new licence obtained not later than one month after the expiration of the expired licence.

RENEWAL FEES:

- 5.17 Licence fees must be paid whenever a licence is due for renewal. Non-payment of licence fees as at and when due shall render the licence void. The licensing authority reserves the right to review the renewal fees from time to time.

NON-UTILISATION OF ASSIGNED FREQUENCIES:

- 5.18 Any frequency spectrum assigned to a person and not used within the time frame specified by the licensing authority, except for the security services, shall automatically lapse without any compensation, unless the reason for the non-usage of the spectrum is beyond the control of the allottee as will be determined by the licensing authority.

LIMITATION OF SPECTRUM SIZE:

- 5.19 To benefit the maximum number of users and to encourage efficient use of spectrum, no allottee shall be assigned more spectrum than in the assessment of the licensing authority is required for the particular service it intends to provide. The use of frequency-efficient equipment shall be encouraged as much as practicable.

SPECTRUM TRADING AND TRANSFER:

- 5.20 All frequency licences are concessions; therefore, they cannot be sold, transferred, leased or sublet either partially or wholly to a third party without a written consent from the licensing authority.

SPECTRUM MANAGERS:

- 5.21 A portion of spectrum allocated to any licensing authority for assignment may be allocated to spectrum managers or other government agencies for final assignment to end users on behalf of the licensing authority.

WITHDRAWAL OR REVOCATION OF LICENCES

- 5.22 Licences issued for spectrum utilisation may be withdrawn or revoked without compensation whatsoever if violations of national and international laws regarding the use of telecommunication facilities are observed. Such violations may also result in the seizure of the equipment of and/or prosecution of the parties involved, and penalties awarded in line with the relevant provisions of the Nigerian Communications Act 2003. It is the prerogative of the licensing authority to determine what acts can be regarded as “violations”.

DEFINITIONS:

Amateur: Private individuals who use frequency to pursue their leisure or hobby activities.

Amateur Spectrum: Various bands of frequencies allocated by ITU for amateur services on exclusive basis.

Broadcast Spectrum: Bands of frequencies which are used for one-way, unidirectional non-interactive transfer of information from one source to many destinations either for the purpose of transferring voice, data or video information.

Citizen's Band: Some channels in the Private Mobile Radio band reserved for use by private individuals or support of private pursuit.

Commercial Telecommunications Users:

All profit making non-governmental organizations, private individuals or corporate bodies who use frequency spectrum to provide radiocommunication service either for self-provision in support of their business or to provide service to third parties.

Diplomatic Users: Representatives of foreign governments and international organizations, which are accredited under Vienna Conventions.

Frequency Allocation Table: a table showing how frequency bands are allocated to various services either on shared basis or on exclusive basis, as recommended by ITU.

Government Users: Government of the Federal Republic of Nigeria and its various organs including defence and security agencies, States and Local Governments.

Interference: The effect of unwanted signal energy due to emissions, radiations upon the reception of a radio station resulting in performance degradation, loss of information or distortion of wanted information.

International Frequencies: Frequencies that can be used anywhere in the world for particular services and which are assigned by ITU international conventions of which Nigeria is a signatory, and includes:

- (a) Aviation Frequencies (Route)
- (b) Maritime Frequencies (Route)
- (c) Satellite Frequencies
- (d) Shortwave Broadcast

Industrial Scientific and Medical Frequencies: Spectrum allocated by ITU for use in industrial, scientific and medical research or applications.

National Frequency Utilisation Table: a table of frequency allotments showing how frequency bands and sub-bands are reserved for specific services on exclusive basis as determined by the appropriate national body.

Non-Governmental Organizations: Private organizations which provide service to public on non-profit and non-commercial basis and which are duly registered by government.

Parastatals: Agencies of government who are engaged in providing specialized services either on commercial or non-commercial basis and which are wholly owned by government.

Private Users: Non-corporate individuals or registered voluntary organizations, which utilise spectrum for their private or commercial activities.

Security Agencies: Government agencies, which are concerned with maintaining law and order and ensuring public security.

Sub-allocation:

- (1) The organs of government who are allocated bulk spectrum by NFMC and who can re-allocate a part of their spectrum to specialized government agencies (e.g. NAMA, NMA) or approved spectrum managers who will in turn assign to end users on their behalf.
- (2) Frequency bands, which are shared by users of services which can be broken into sub-allocations and separately managed by each party involved in the sharing.

ABBREVIATIONS:

CAP: Chapter

ITU: International Telecommunications Union

LFN: Laws of the Federation of Nigeria

MOC: Ministry of Communications

NAMA: Nigerian Airspace Management Agency

NBC: National Broadcasting Commission

NCC: Nigerian Communications Commission

NFMC: National Frequency Management Council

NMA: Nigerian Maritime Authority