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Planning and the Telecommunications Industry in Nigeria

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2.1 Introduction

Telecommunications play a major role in the socio-economic development of settlements. Many Nigerian settlements are currently experiencing the expansion of telecommunication infrastructure, especially in the area of the Global System for Mobile Telecommunication (GSM), as private telecommunication carriers compete stiffly to take advantage of the huge market and enjoy a huge share of it. However, despite the astronomical growth of the telecommunications sector in Nigeria, not much emphasis has been laid on environmental sustainability. The provision and location of telecommunications infrastructure lacks conscious physical planning efforts, and rather than proactively integrate planners in the strategic operations of telecommunication companies

and agencies, planners' engagement is reactive, and happens when expectations of development get awry. The challenge really is that telecommunication companies and agencies in Nigeria where the services of physical planners are essential are not adequately aware of how planners can be of help, and most planners themselves are not well informed of how their expertise can be utilised to offer solutions in the telecommunications industry. This chapter, therefore, attempts a description of the Nigerian telecommunications industry, presents a narrative of the nature of planners' training and expertise within statutory limits, and ultimately discusses the professional services a planner can afford to improve the efficiency of telecommunication companies and their regulatory agencies.

2.2 The History of Telecommunication in Nigeria

The telecommunications industry dates back to 1886 when the first telegraphic submarine cable was laid by the British firm, Cable & Wireless Ltd. From this era up till independence in 1960, Nigeria had just 18,724 fixed telephone lines for an estimated population of 45 million people (Olapeju, 2008). Up till 1995, four national development plans provided about 400,000 installed district exchange lines. However, with the establishment of the Nigerian Telecommunications Limited (NITEL), a government-owned monopolist operator in the communication sector in 1985, over 160,000 lines were introduced into the Nigeria's digital sector (Alabi, 1996). This

prompted the Federal Government to embark on market-oriented reforms by partially liberalizing the telecommunications industry. Despite the establishment of the Nigerian Communications Commission (NCC), as prescribed by Decree 75 of 1992, the liberalization of the telecommunications sector eventually became a reality only in August 2001. Nigeria's return to democracy in 1999 brought about full liberalization of the telecommunications industry, and necessitated the strengthening of the power and independence of the industry regulator, NCC. Consequently, a new telecommunication law was enacted in 2003. The epoch marked the watershed in the Nigeria's telecommunications industry, given the enormous growth and innovation accounted for by the industry. From a teledensity ratio of 0.4 made evident by the 450,000 lines available for a speculated population of 120 million in 1999, the total number of Nigerian telecommunication subscribers as of the end of June 2016 stood at 149,803,714, and Internet users for the same time stood at 92,181,978, making Nigeria the biggest Internet market in Africa. Moreover, in real terms, the telecommunications sector now accounts for about 9.8 per cent of Nigeria's GDP (Nigerian Bureau of Statistics, 2016).

2.3 The Regulatory Function of the Nigerian Communications Commission (NCC)

The Nigerian Communications Commission (NCC) is the independent authority regulating the telecommunications

industry in Nigeria. The Commission is responsible for creating an enabling milieu for competition among operators in the industry as well as ensuring the provision of qualitative and efficient telecommunication services throughout the country.

Over the years, NCC has earned a reputation as a foremost telecommunication regulatory agency in Africa. It essentially aims at leveraging on application of information and communication technology for different aspects of national development. It has initiated several programmes such as State Accelerated Broadband Initiative (SABI) and Wire Nigeria Project (WIN) to help stimulate demand and accelerate the uptake of ICT tools and services necessary for the enthronement of a knowledge society in Nigeria. The power of the NCC is derived from Section 2 of the Communications Acts (NCA) of 2003:

The Commission shall be a body corporate with perpetual succession and a common seal, capable of suing and being sued in its corporate name, and shall have the power to do the following – (a) enter into contracts and incur obligations ; (b) acquire, hold, mortgage, purchase and deal howsoever with property, whether movable or immovable, real or personal; and (c) do all such things as are necessary for or incidental to the carrying out of its functions and duties under this Act.

The functions of the NCC as encapsulated in section 4 of same act are as follows:

- (i) the facilitation of investments in and entry into the Nigerian market for provision and supply of communications services, equipment and facilities;
- (ii) the protection and promotion of the interests of consumers against unfair practices including but not limited to matters relating to tariffs and charges for and the availability and quality of communications services, equipment and facilities;
- (iii) ensuring that licensees implement and operate at all times the most efficient and accurate billing system;
- (iv) the promotion of fair competition in the communications industry and protection of communications services and facilities providers from misuse of market power or anti-competitive and unfair practices by other service or facilities providers or equipment suppliers;
- (v) granting and renewing communications licences whether or not the licences themselves provide for renewal in accordance with the provisions of this Act and monitoring and enforcing compliance with licence terms and conditions by licensees;
- (vi) proposing and effecting amendments to licence conditions in accordance with the objectives and provisions of this Act;
- (vii) fixing and collecting fees for grant of communications

- licences and other regulatory services provided by the Commission;
- (viii) the development and monitoring of performance standards and indices relating to the quality of telephone and other communications services and facilities supplied to consumers in Nigeria having regard to the best international performance indicators;
- (ix) making and enforcement of such regulations as may be necessary under this Act to give full force and effect to the provisions of this Act;
- (x) management and administration of frequency spectrum for the communications sector and assisting the National Frequency Management (NFM) Council in developing a national frequency plan;
- (xi) development, management and administration of a national numbering plan and electronic addresses plan and the assignment of numbers and electronic addresses therefrom to licensees;
- (xii) proposing, adopting, publishing and enforcing technical specifications and standards for the importation and use of communications equipment in Nigeria and for connecting or interconnecting communications equipment and systems;
- (xiii) the formulation and management of Nigeria's inputs into the setting of international technical standards for communications services and equipment;

- (xiv) carrying out type approval tests on communications equipment and issuing certificates therefor on the basis of technical specifications and standards prescribed from time to time by the Commission;
- (xv) encouraging and promoting infrastructure sharing amongst licensees and providing regulatory guidelines thereon;
- (xvi) examining and resolving complaints and objections filed by and disputes between licensed operators, subscribers or any other person involved in the communications industry, using such dispute-resolution methods as the Commission may determine from time to time including mediation and arbitration;
- (xvii) preparation and implementation of programmes and plans that promote and ensure the development of the communications industry and the provision of communications services in Nigeria;
- (xviii) designing, managing and implementing Universal Access Strategy and programme in accordance with Federal Government's general policy and objectives thereon;
- (xix) advising the Minister on the formulation of the general policies for the communications industry and generally on matters relating to the communications industry in the exercise of the Minister's functions and responsibilities under this Act;

- (xx) implementation of the Government's general policies on communications industry and the execution of all such other functions and responsibilities as are given to the Commission under this Act or are incidental or related thereto;
- (xxi) generally advising and assisting communications industry stakeholders and practitioners with a view to the development of the industry and attaining the objectives of this Act and its subsidiary legislation; A 296 2003 No. 19 Communications
- (xxii) representation of Nigeria at proceedings of international organisations and fora on matters relating to regulation of communications and matters ancillary and connected thereto; and
- (xxiii) general responsibility for economic and technical regulation of the communications industry.

2.4 Who is a Planner?

Urban planning deals with decisions about the future of urban environments. It is about the management and development of cities, towns, villages and the countryside. It is about balancing the conflicting spatial demands of housing, industrial development, agriculture, telecommunications, recreation, transport and the environment, in order to allow appropriate development to take place.

Planning also integrates renewal within towns and cities; and the often competing views of local businesses and

communities are taken into account. It also ensures that in rural areas development is sustainable, with the right balance of development to achieve qualitative housing and preservation of ecological integrity of the countryside. Moreover, planning aim to make positive contributions towards tackling the effects of climate change.

A town planner is a professional in the built environment who must have acquired skills, knowledge, and capabilities to use scientific methods, which include, algorithms, models, theories, Geographic Information System and computer-aided techniques, to prepare blueprints, such as layouts, master plans, campus master plans, urban renewal plans, regional plans and tourism development plans that guide the use and future of spaces. He is trained to formulate policies, arbitrate between activities and space as well as involve in advocacies in the quest for balance between competing communities' interests, government policies, and the environment. He has the wherewithal to prepare traffic impact analysis, environmental impact statements in respect of major developments, as spelt out in the section 33 of the Nigerian Urban and Regional Planning Law of 1999. A planner should be able to cover a broad area of work using many different skills; choose whether to specialize in a particular area, such as protecting the historical environment or urban design, or to work across a variety of areas; and develop creative and original planning solutions to satisfy all parties. A planner should have the capacity to consult with stakeholders and other interested parties; negotiate with

developers and other professionals, such as surveyors and architects; and assess planning applications and monitor outcomes as necessary.

A planner is in a position to attend and present at planning boards appeals and public inquiries; keep up to date with legislation associated with land use; promote environmental education and awareness; help disadvantaged groups express their opinions about planning issues and proposals; visit sites to assess the effects of proposals on people or the environment; and schedule available resources to meet planning targets. Today in Nigeria, the activities of town planners are regulated by Town Planners' Registration Council of Nigeria (TOPREC). As well captured in the section 7 of the Town Planners' Registration Council of Nigeria, Decree No. 3 of 1988, a professional would only be qualified to be christened a town planner if, he has passed the qualifying examination for registration recognized or conducted by TOPREC; holds a degree in Urban and Regional Planning or Town Planning from any institution recognized by the Nigerian Institute of Town Planners (NITP); holds a certificate recognized by TOPREC, and has not less than two years' post-qualification practical experience in the profession; holds a Professional Diploma in Urban and Regional Planning from any institution recognized by NITP; and, most importantly, has passed in the final professional examination of both NITP and TOPREC.

Professional planners have career opportunities in planning agencies of state governments; federal agencies which

have activities with planning implications like ministries of aviation, education, agriculture, communication, health, aviation, petroleum, and water resources; universities and polytechnics and their regulatory agencies, like National Universities Commission and National Board for Technical Education; research institutions and financial establishments; private consultancy firms; and telecommunication companies and their regulatory agencies, like the Nigerian Communications Commission (NCC), inter alia.

2.5 Roles of a Town Planner in the Telecommunications Sector

The roles a town planner can play in telecommunications are in three categories. A town planner can work in telecommunication companies, like MTN, Globacom, Airtel, engage with telecommunication companies as a consultant; and even function in telecommunication regulatory agencies, like the NCC. In operating telecommunication companies, a planner can be saddled with the responsibility of searching, selecting, investigating and analysing potential sites for the erection of antennae carrying towers and base stations. This endeavour should culminate in the selection of an optimal site that will be virtually in line-of-sight at the proposed tower height, with the desired service area; in line-of-sight with the main or relay station from which the signal feed is to be taken and have a sufficiently wide path between obstructions to avoid

ghosting; located in a position that the antenna structure will not be hazardous to human health and to aircrafts.

In addition, the planner's eventual ideal site should preferably be free from encumbrances, like erosion, and the soil should be such that has the capacity for supporting the antenna structure without need for sophisticated foundations. The soil should not be rocky but good enough to allow for the grounding of the tower, which is very necessary for the protection of the radio equipment against damage from lightning strike. The site should have existing vehicular access, or be positioned such that access can be provided at reasonable cost. It should be surrounded by open land to facilitate the erection of mast or tower and be within reasonable distance of an adequate and reliable means of electricity supply. The site should be clear of existing and proposed overhead high tension (HT) cables and be free from legal encumbrances (Agubor et al., 2013). As a matter of fact, a planner's investigation should also ensure that the owners of the potential site are willing to sell or lease at an acceptable price, and by virtue of his knowledge of standards and codes, be in a position to advise on the acceptability of the site to planning authorities, and ensure all planning approvals are in place prior to construction activities.

A planner can assist with landlord consent on location activities; assist with the preparation and attendance of community consultations; and conduct planning reviews to determine planning or community issues that may impact on the site. A planner with proficiency in the Geographic

Information System applications would have the capacity to effectively plan and design optical fibre paths. Optical fibres nowadays are used as backups and alternatives to environmentally intrusive and blotting base stations.

For engagements at the consultancy level, a planner is the only professional with the wherewithal to undertake environment impact assessments, usually considered as a prerequisite that goes with other application documents for approval of telecommunication facilities, and have the environmental impact statement document authenticated with the Town Planning Registration Council of Nigeria's seal. He is in the position to facilitate development permit for telecommunication facilities' sites as required by relevant legislation, guidelines and codes; effectively manage the consultation and engagement with councils, communities, interested parties and other stakeholders; and manage the planning process in accordance with the deployment code for telecommunication installations.

A planner that will function in regulatory telecommunication regulatory agencies, like the NCC, should recommend approval and eventually approve the construction of telecommunication base stations. The planner's role would be to ensure applications in respect of telecommunication facilities' compliance with environmental standards as enshrined in the guidelines of the regulatory agency represent the basis for approval or rejection of the applications. Decisions of permit are not just taken via desk appraisal of the applications

with the details inherent in the environmental impact statement and the engineering drawings. It behoves the planner to also conduct site inspection in order to “ground-truth” the details submitted by consultant planner on behalf of a particular telecommunication carrier, and judge whether the sites carrying capacity and environmental baseline condition would indeed be supportive of the proposal. However, this regulatory role is not the same and not mutually exclusive with the regulatory roles being carried out by more sustainability-conscious authorities, like National Environmental Standards and Regulations Enforcement Agency (NESREA) and state planning authorities.



Plate 2.1: A tower located too closely to a high tension power line and a residential building

2.6 The Challenge of Multiple Regulation

In recent times, telecommunication companies have been complaining about the overkill of multiple regulation in the telecommunications industry. They argue that the multiple regulation is tantamount to multiple taxation, as each agency that exercises regulatory functions equally imposes on them a levy, which imposes on them an economic burden, which could as well bring about higher tariffs on the public. They equally claim that telecommunication regulation is a federal government responsibility, and since the federal government has an agency in charge (NCC), which has a department that enforces standard in the manner operators build their infrastructure, the oversight by NESREA and state planning agencies are duplication and rather unnecessary.

Actually, NESREA's foray into the telecommunications arena is explained by the thrust of its regulations, which is to, among others, ensure consistent application of environmental laws, regulations and standards in all sectors of the telecommunications and broadcast industry in Nigeria. But the conflicting regulatory standards of both NCC and NESREA are indeed worrisome. For instance, 5(4)(1)(b) of NESREA Regulations, 2011 stipulates that all new facilities shall have a minimum setback of 10 metres from the perimeter wall of any premises to the base of the mast/ tower, whereas the NCC prescribes a five-metre setback, while the latter favours a 10 metre set back of the telecommunication base stations. How the two government agencies, purporting to be adhering to

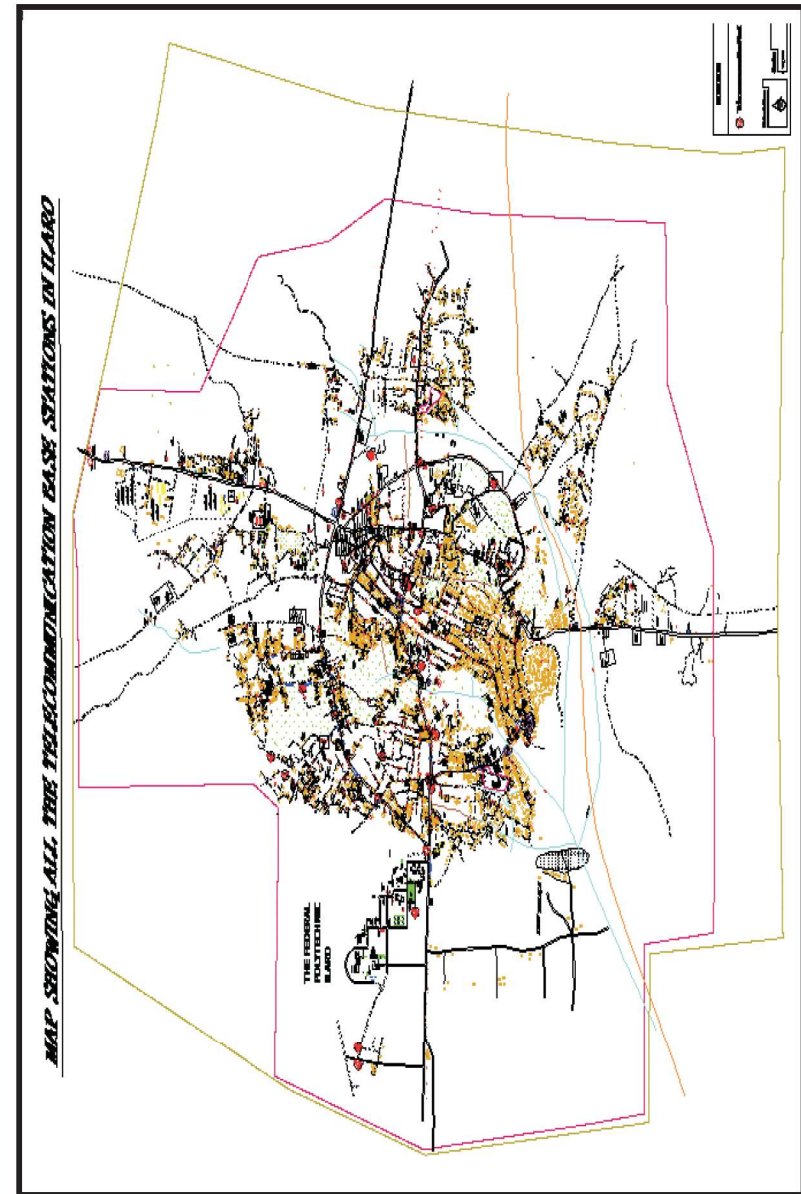


Figure 2.2: Telecommunications Base Stations in Ilaro, Ogun State, Nigeria.

international practices for appraising telecom facilities' location, arrived at different standards in their regulations is inexplicable.

State governments' intervention in the regulation of telecommunication facilities has a basis in law. The states have prerogatives over land management and control, as corroborated in the landmark judgment delivered by the Supreme Court on 13th June 2003. In a 4 to 3 split judgment, the apex court granted five of the seven reliefs sought by the plaintiff (the Lagos State Government and 35 other states) against the federal government. The judgement, which nullifies the section of the Urban and Regional Planning Law of 1999 that gives power of development control to the Federal Government, makes clear the states' monopoly over urban and regional planning in Nigeria. Hence, notwithstanding the technical specifications from NCC and NESREA with respect to installation of masts and towers anywhere in Nigeria, the states still have the right to regulate the installation of these structures, as they locate within spaces within the purview of states' management and control. The integrity of telecommunication structure and their maintenance plans have to be ascertained from time to time. States too have a say in knowing the outcome of the soil test and the strength of the foundation in respect of telecommunication facilities, approved height and setbacks.

While the different agencies involved in the regulation of telecommunication facilities are relevant, it is very important

for their standards to be harmonized, and the processes streamlined. This will encourage telecommunication operators to seek planning approval in respect of their facilities.

2.7 Conclusion

There is no gainsaying the fact that telecommunications would still continue to play a dominant role in the Nigerian economy. As expatiated in this chapter, activities associated with telecommunications have spatial dimensions, and the need to mainstream planning into them is highly justified by the need to prevent a chaotic development and even obviate poor service delivery that poor facilities' siting can spawn. While telecommunication companies and agencies are expected to leverage on the value planning can bring in enhancing their operations and as well as expressive of their environmental responsibility, it also behoves professional planners and budding planners alike to further specialize and hone their capacities in planning aspects that have immense applications in the telecommunications industry.

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Opportunities for Urban and Regional Planners in the National Primary Health Care Development Agency

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3.1 Introduction

There are a variety of career opportunities within the urban and regional planning profession in both the public and private sectors (Dieker, 2015). Over time in Nigeria however, the perspective of town planners on career opportunities within the planning profession is centred on public offices/agencies. Hence, town planners only pursue job opportunities in government parastatals, like the Ministry of Physical Planning, at federal, state or local government levels. Recently, this notion is being disproved of; planners are now being enlightened about the numerous opportunities and consultancy opportunities inherent in all other agencies (be it private or public) in Nigeria. The knowledge imparted and skills acquired in planning schools are usually intended to enhance planner's analytical,