

QUEST FOR HOUSING AND PRESERVATION OF WETLANDS IN NIGERIA: A CASE STUDY OF LAGOS STATE*

Abstract

Global housing shortage is phenomena, manifesting particularly in metropolitan cities and its fringes, all around the world. In a developing country like Nigeria, the problem is humongous and Lagos State seems to be the hardest hit by the scourge. The Lagos scenario is worsened by the non availability of land for housing development given the State land-mass ratio to its water bodies and the ever-growing population. The quest to surmount the problem of land shortages for housing in Lagos State has resulted in the encroachment on the State water bodies including Wetlands, Swamps and Mangroves by property developers through sand-filling and reclamation. The long-time consequences of this encroachment are detrimental to sustainable development of the environment and wellbeing of man in the society. The immediate consequence of the encroachment is exemplified in the recurrent flooding and building collapse syndrome in the State. Using the doctrinal research methodology, the paper examines the relationship between housing needs, land shortages, Wetlands encroachment and environmental degradation in Lagos State. It highlights the sacred needs for Wetlands within the Ecosystem and discusses the nexus between lands, housing and environmental protection. The paper found that encroachment on the water bodies is detrimental to the ecosystem, human health and sustainable development. Such encroachment exposes the aquatic plants and animals to the danger of loss of habitat and extinction. The problem also engenders incessant flooding and the resultant loss of life and properties in the State. Houses built on these Morasses are not only expensive to construct but are also susceptible to foundation rupture and collapse. The paper calls for the protection of the State water bodies through public advocacy, policy direction and legislative intervention. It reiterates the need for urban renewal strategies, satellite cities development and public-private partnership funding of housing development.

Keywords: Land, Housing, Wetlands, Environment, Sustainable development.

1. Introduction

From time immemorial man has always lived communally and within safe neighborhoods. Shelter is at the core of the conviviality of man. Shelter (housing) is innate to the nature of man and has been ranked second in the hierarchy of needs of mankind.¹ The importance of housing to the overall wellbeing of society is immeasurable and fathomless. Apart from the protection it offers against all vicissitudes of life; housing contributes to environmental protection and management,² human health,³ human security, economic development,⁴ social security and aesthetics amongst others.⁵ It is also trite that human settlements, for diverse reasons, are founded around natural landmarks, especially where there are natural springs, seas and oceans.⁶ These natural pull of human settlements, amongst others contributed to the population density of coastal cities the world over.⁷ Lagos state is naturally blessed with abundance of water bodies, including the Atlantic, Lagoons and several Rivers and Streams flowing from the hinterland into the Ocean. The human settlement pull of these water bodies and the economic reality of Lagos State assented to the population density of the State⁸ and its classification as one of the fastest growing Megacity in the world.⁹ The large population of the State exerts a lot of pressure on the State's resources including land and other infrastructure; particularly the provision of housing to the teeming population. The pressure is exacerbated by the fact that available land for housing is in short supply in view of the water

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¹ Maslow, A. H. A theory of human motivation. (1943) *Psychological Review*, 50(4), 370-96.

² Adamkiewicz, G., etal: Environmental conditions in low-income urban housing: clustering and associations with self-reported health. (2014) *American journal of public health*, 104(9), 1650-6.

³ Housing impacts health: New WHO Guidelines on Housing and Health: Recommendations to promote healthy housing for a sustainable and equitable future. Available at: <https://www.who.int/phe/news/note-media-housing-health-guidelines/en/> accessed 08/01/2020; see also: Cohen, R. Insights from Housing Policy Research: The Impacts of Affordable Housing on Health: A Research Summary. Washington, DC: Center for Housing Policy 2011.

⁴ Kolawole Y: Housing as a Tool for Economic Development <https://www.vanguardngr.com/2015/11/housing-as-tool-for-economic-development/> accessed 08/01/2020

⁵ Barker, David, & Miller: Homeownership and Child Welfare. (2009) *Journal of Urban Economics* 47 (2): 356–369.

⁶ Nicholls S, Crompton JL. The Effect of Rivers, Streams, and Canals on Property Values. *River Res Applic.* (2017) 33:1377–1386. <https://doi.org/10.1002/rra.3197> accessed 08/01/2020

⁷ Haughey F. M: People and Water: A study of the relationship between humans and rivers in the Mesolithic and Neolithic with particular reference to that within the Thames Basin Vol. 1 University College London 2009 available at: http://discovery.ucl.ac.uk/1460514/1/Fiona_Haughey_vol_1.pdf accessed 08/01/2020

⁸ National Population Commission Nigeria puts the population of Lagos State at over 21 million in 201 available at: <https://worldpopulationreview.com/world-cities/lagos-population>. accessed 08/01/2020

⁹ Kotkin J: The World's Fastest-Growing Megacities. 2013 Forbes Magazine online, available at: <https://www.forbes.com/sites/joelkotkin/2013/04/08/the-worlds-fastest-growing-megacities/#1e1c4ab07519> accessed 08/01/2020

bodies/land mass ratio of the State.¹⁰ The pressure has become insurmountable in recent times and has led to the encroachment on the water bodies in the quest to make land available for housing needs. This turn of event is a sad commentary on the inability of policy makers at recognizing the symbiotic relationship between environmental protection and housing development and the unwillingness to address the problem holistically. The unceremonious and unbridled conversion of the water bodies for housing development can only lead to but one conclusion: long term harm to man and the environment. This paper seeks to address the problem and offer practical solution to the seeming conflict between housing development and environmental/conservation protection. Using the doctrinal research methodology, the paper examines the relationship between housing needs, land shortages, wetlands encroachment and environmental conservation in Lagos State. It highlights the sacred need for wetlands within the ecosystem and discusses the nexus between lands, housing and environmental protection. The paper found that encroachment on the water bodies is detrimental to the ecosystem, human health and sustainable development. The loss of these water bodies causes biodiversity damage and loss; it exposes the aquatic plants and animals to the danger of loss of habitat and extinction, whilst also contributing to global warming. The problem also engenders incessant flooding and the resultant loss of life and properties in the State. Houses built on these Morasses are not only expensive to construct and maintained, they are also susceptible to foundation rupture, premature aging and collapse.¹¹ The paper calls for the protection of the State water bodies through public advocacy, policy direction and legislative intervention. It reiterates the need for urban renewal strategies, Satellite cities development and public-private partnership funding of housing development.

In addressing the issues raised, the paper is divided into five parts including the introduction. Part two discusses the problem of land and housing shortages in Lagos State and the current penchant to encroach on State water bodies in the quest for housing development. Part three is devoted to a discourse on the role and place of the wetlands in the overall wellbeing of the environment, including man and housing development. The part also examines the seeming conflict between housing development and environmental conservation, noting that the relationship between the two concepts is harmonious rather than discordant. In part four, the paper espouses the legal and institutional framework for the protection of wetlands in the state; and how the housing question can be addressed without further encroachment on the State water bodies. Part five completes the paper.

2. Land and Housing Shortages in Lagos State

Lagos state is the smallest state in Nigeria, covering an area of 358,862 hectares or 3,577 sq. km. (over 40% of which is composed of water bodies¹²) which represents 0.4% of Nigeria's territorial land mass of 923,773 sq. km, but among the largest populated state in Nigeria.¹³ Based on the UN-Habitat and international development agencies' estimates,¹⁴ Lagos State is said to have about 24.6 million inhabitants in 2015 and the State population was expected to have hit the 35 million mark in 2020.¹⁵ With such humongous population in the state, the housing needs and challenges are better imagined than conceptualized. As at 2013, with a population density of about 20,000 persons per square kilometer in the built-up areas of Metropolitan Lagos, an estimated 2 million units of housing and additional 3 million units to be upgraded, were required to improve the lives of up to 70% of the population that live in slums across Lagos State.¹⁶ The housing deficit is felt both in quantity and quality and transcends all social strata, particularly people at the lower end of the social ladder. According to Akinwale,¹⁷ 'more than half of the Lagos metropolitan population resides in informal settlements, squatter housing, unauthorized land developments, or rooms and flats in dilapidated and uncompleted buildings.' The statistics for the current period, though unavailable, cannot but be staggeringly heartrending, given the current realities of urban migration, insecurity and poverty in Nigeria. The problem is confounded in Lagos state by the ubiquitous challenge of unavailability of land for housing, engendered by the land mass/water bodies mix of the state. The acute shortage of housing in the state and the urge to increase land availability has led to encroachment on the water bodies, including wetlands and morasses, by way of landfilling and dredging to obliterate these biodiversity, to the detriment of man and the society. It is common to see housing developments springing up on wetlands, river shores and ocean beaches around the state. Unfortunately, these ugly developments are not limited to the activities of private property developers alone, but are sometimes championed by state actors and government

¹⁰ Oteri, A.U & Ayeni R.A.: *Water Megacities and Global Change – The Lagos Megacity*. available at: <http://eaumea.org/wp-content/uploads/2016/05/EN-Lagos-Monograph.pdf> accessed 23/06/2021

¹¹ Anesu C.: Building on wetlands: The effects The Patriot Newspaper, January 12, 2017 available at: Celebrating Being Zimbabwean | The Patriot Home accessed 24/07/2021

¹² Oteri, A.U & Ayeni R.A.: *Water Megacities and Global Change – The Lagos Megacity*. available at: <http://eaumea.org/wp-content/uploads/2016/05/EN-Lagos-Monograph.pdf> accessed 23/06/2021

¹³ Lagos state. see: Lagos State Zip code available at: <https://postalcode.ng/lagos-state/> accessed 27/06/2021

¹⁴ See: About Lagos, available at: <https://lagosstate.gov.ng/about-lagos/> accessed 27/06/2021

¹⁵ *ibid*

¹⁶ The Lagos State Ministry of Economic Planning and Budget 2013 Lagos State Development Plan 2012-2025 (Lagos: Lagos State Government) available at: <https://www.proshareng.com/admin/upload/report/11627-271150413-proshare.pdf> accessed 27/06/2021

¹⁷ Akinwale O.P: Urban Slums in Nigeria: Ensuring Healthy Living Conditions available at: <https://www.urbanet.info/nigeria-urban-slums-health/> accessed 27/06/2021

agencies.¹⁸ The Lekki-Epe axis is replete with numerous housing estates and commercial buildings built on erstwhile flourishing wetlands and morasses that once served as habitat to many biodiversity creatures; the Eko Atlantic city¹⁹ is also a glaring extortion of the nature by man. The consequential result of this untoward action is ominous for man and the society at large. Houses on wetlands are prone to flooding, diseases, structural failure, damping, and sometimes collapse leading to reduced lifespan.²⁰ Therefore, wetlands encroachment does not assure sustainable housing delivery; it rather undermines the delivery of quality housing to the citizenry. The environmental instability occasioned by wetlands encroachment is manifested in several ways including, flooding²¹ and loss of biodiversity. We seems to have lost the importance and balancing values of these biodiversity to nature, but rather slaughtered it on the altar of housing needs, economic development and ethnocentric environmental philosophy, weaved around man. Surprisingly however, there are alternative ways to solve the problem of land inadequacy for housing in Lagos State and also protect the wetlands for the benefit of all. The wetlands must be conserved and protected for their contributions to the sustainable human settlement since damage to them may impair the reasonable enjoyment of life and the economies of the affected communities.

3. Wetlands Protection and Conservation

The term 'wetland' encompasses areas covered by shallow water or have water-saturated soil and that support vegetation adapted to wet conditions;²² they are lands or areas (such as marshes or swamps) that are covered often intermittently with shallow water or have soil saturated with moisture.²³ They are also areas where the water table is close to or at the water surface and susceptible to water-tolerant and water-loving plants. The Ramsar Treaty²⁴ broadly defines wetlands as: '... areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres'.²⁵

According to Muderere²⁶ 'wetlands comes in an incredible array of landscapes found around banks of rivers and streams, edges of lakes and ponds, open fields and wooded areas where the water table is near the surface.' Wetlands are interfacial ecosystem connecting the terrestrial and aquatic ecosystems. They are also described as ecotones for being the transitional elements in-between terrestrial and aquatic ecosystems.²⁷ There are various types of wetlands under diverse nomenclature including, estuaries, marine, riverine and lacustrine. Irrespective of the type of wetlands in contention, the overriding feature of wetlands is that piece of land that the water table is closer to the surface. The value of wetlands to the ecosystem was lost to humanity until probably the turn of the century.²⁸ In the past, wetlands were viewed with disdain and ignorant perception that they were worthless, wasteland and diseases infested swamps.²⁹ This uneducated perspective led to loss of viable wetlands to agriculture and housing development in the past.³⁰ The importance and value of wetlands to man and the ecosystem cannot be overemphasized and its contributions to environmental sustainability are immeasurable.³¹ This importance was underscored in the work of Hall as;³² 'Wetlands are among the most productive life-support systems in the world and are of immense socio-economic and ecological importance to mankind. They are critical for the maintenance of biodiversity and perform a great role in the biosphere.' Wetlands, like streams and lakes, impacts amenity values for nearby properties through open space, enhanced views, wildlife, and a buffer against noise and pollution. The hydrologic value of Wetlands³³ stands out; it engages in waste

¹⁸ The erstwhile Lagos State Legislators' housing estate on Lagos Island was built on wetlands; Ilubirin Housing development in Lagos Island is been built on wetlands, so also is the Osborne Offshore Estates in Ikoyi, Lagos.

¹⁹ Prime Real Estate and Infrastructure in Africa. available at: <https://www.ekoatlantic.com/> accessed 27/06/2021

²⁰ Anesu C. *op.cit* n.11

²¹ Unfortunately, the flooding is not limited to the built wetlands area alone, but most times affects otherwise formerly dry homes of downstream property owners in the neighborhood, thus escalating its impact.

²² Nicholas, S: *The War Over Wetlands Issues in Science and Technology*, Vol. 8, No. 4 (SUMMER 1992), pp. 35-41

²³ Definition "Wetlands" available at : <https://www.merriam-webster.com/dictionary/wetland> accessed 24/07/2021

²⁴ The Ramsar Convention, signed in 1971 in Ramsar, Iran, is the only global treaty that focuses specifically on wetlands. Today 170 nations are signatories to the Ramsar Convention. Available at: <https://www.ramsar.org/> accessed 24/07/2021

²⁵ Ramsar Convention, 1971, Article 1.1

²⁶ Muderere, T. Natural Co-Existence or Confinement: Challenges in Integrating Bird-Life Concerns into Urban Planning and Design for Zimbabwe. *Journal of Sustainable Development in Africa*. (2011) 13(1), pp.162-183.

²⁷ Greb, S.F et al: Evolution and importance of wetlands in earth history in *Wetlands through Time*, Stephen F. Greb & William A. DiMichele (ed.) 2006.

²⁸ There was no international collaborative effort to protect and conserve the wetlands until the 1971 Ramsar convention in Iran.

²⁹ Ramsar Convention Manual, 2013

³⁰ Olusola, M. et al: An Assessment of Wetland Loss in Lagos Metropolis, Nigeria. *Developing Country Studies* Vol.6, No.7, 2016 available at: www.iiste.org accessed 24/07/2021

³¹ Barbier, E. B. et al. Economic valuation of wetlands: *A guide for policy makers and planners*. Ramsar Convention Bureau, Gland, Switzerland. 1997.

³² Halls, A.J. (ed.). Wetlands, Biodiversity and the Ramsar Convention: The Role of the Convention on Wetlands in the Conservation and Wise Use of Biodiversity. 1997 Ramsar Convention Bureau, Gland, Switzerland.

³³ Bullock, A, & Acreman, M. The role of wetlands in the hydrological cycle. *Hydrology and Earth System Sciences Discussions, European Geosciences Union*, 2003, 7 (3), pp.358-389

distillation and purification thus regulating water quality,³⁴ in addition to the more commonly recognized function of being habitat to varieties of microbiological organisms. It provides food, water, and shelter for fish, birds, and mammals, and serves as a breeding ground and nursery for numerous species, particularly many endangered plant and animal species.³⁵ In particular, wetlands play a niche in the food chain and a source of nutrients for the survival of life in a given ecosystem.³⁶ Wetlands remove and store greenhouse gases from the atmosphere thereby slowing the onset of global warming,³⁷ no wonder it is touted to positively impact air quality.³⁸ Wetlands is a buffer against floods,³⁹ prevents soil erosion and purifies underground water system. It acts like natural sponges on the landscape, absorbing and then gradually releasing storm waters and lessening flood damage. In the words of Sithole and Goredema,⁴⁰

Wetlands have an un-ratable value to the society because they play a major role in the environment to keep it in a balanced state and they support multiple value ecosystems. They perform a number of vital functions in the maintenance of the overall balance of nature, flood control, soil erosion control, water storage and purification, ground water recharge and discharge, protection and stabilization of storm water by acting as natural barriers and recreation sanctuaries, besides providing outputs of commercial value and economic sustenance.

Wetlands are therefore of existential value to man and nature, their preservation and conservation fulfils the ‘deep ecology’ philosophy of environmental protection⁴¹ and advances environmental sustainability⁴² in furtherance of Sustainable Development Goals⁴³ (SDGs) enunciated in the United Nation policy. The aesthetic value of wetlands as a pull for recreation and sightseeing constitute attractions to human settlements and property development within its precincts. The greenery and lush vegetation of wetlands, the exotic ambience and the temperate weather pervading its surroundings are magnetic pull to human settlements and property development. A properly integrated and protected wetlands is an economic asset in the hands of estate developer that knows its onions. Wetlands and housing development has a symbiotic relationship that benefits both parties and promotes environmental harmony at all times.⁴⁴ It adds value to the property on the one hand⁴⁵ and enjoys protection from the property owners as a result of its intrinsic value on the other. It is however a sad retort to recant the value-added advantage of wetlands to housing development⁴⁶ which is lost on the altar of economic expediency, environmental ignorance, inadequate legal and institutional framework and undulating government policy. In Lagos state for instance, a study carried out by Nigeria Environment Study Action Team (NEST) in 2011 shows that 91% of wetlands in Lagos has been taken over by various man-made factors.⁴⁷ Estate developers failed to see the larger picture and proprietary value in the preservation of wetlands to their property investments; they are more concerned with the immediate returns on their investments, but ends up with unlivable properties susceptible to floods, rupture and collapse. Emboldened by developments in building and engineering technology, estate developers ignorantly refused to appreciate the socioeconomic value and environmental benefits of

³⁴ Uluocha N.O. & Okeke I.C: Implications of wetlands degradation for water resources management: Lessons from Nigeria *GeoJournal*, Vol. 61, No. 2, *Barriers and Solutions to Water Sustainability in Africa* (2004), pp. 151-154

³⁵ Novitzki. R.P *etal*: Restoration, Creation, and Recovery of Wetlands-Wetland Functions, Values, and Assessment *National Water Summary on Wetland Resources. United States Geological Survey Water Supply Paper 2425* available at: <https://water.usgs.gov/nwsum/WSP2425/functions.html> accessed 24/07/2021

³⁶ Mutisi, L. An Investigation into the Contribution of Housing Developments to Wetland Degradation within the City of Harare, Zimbabwe. A thesis submitted for the Degree of Master of Science In Environmental Management at the University of South Africa 2014 http://uir.unisa.ac.za/bitstream/handle/10500/18778/dissertation_mutisi_l.pdf?sequence=1&isAllowed=y accessed 24/07/2021

³⁷ Mancuso, P & Erie, PA: Earth Talk: The Importance of Preserving Wetlands available at: <https://globalwarmingisreal.com/2013/06/03/earthtalk-the-importance-of-preserving-wetlands/> accessed 24/07/2021

³⁸ Novitzki. R.P *etal* n36 *supra*

³⁹ Costanza, R: The Value of Coastal Wetlands for Hurricane Protection *Ambio*, Vol. 37, No. 4 (Jun., 2008), pp. 241-248

⁴⁰ A Sithole A *etal*: Building in Wetlands to Meet the Housing Demand and Urban Growth in Harare *International Journal of Humanities and Social Science* Vol. 3 No. 8 [Special Issue – April 2013] 193-201 at 199

⁴¹ Madsen, P: Deep Ecology Environmental Philosophy: available at: <https://www.britannica.com/topic/deep-ecology> accessed 24/07/2012

⁴² Adekola, O., Whanda, S. & Ogwu, F. Assessment of Policies and Legislation that Affect Management of Wetlands in Nigeria. *Wetlands* 32, 665–677 (2012)

⁴³ UNSDGs available at: <https://sdgs.un.org/goals/goal15> accessed 24/07/2021

⁴⁴ Katharine R.E. *etal*: Local regulation and land-use change: The effects of wetlands bylaws in Massachusetts *Regional Science and Urban Economics* 39 (2009) 409–421; Brent L. Mahan *etal*: Valuing Urban Wetlands: A Property Price Approach. *Land Economics*, Vol. 76, No. 1 (Feb., 2000), pp. 100-113

⁴⁵ Kaza N and BenDor T: The land value impacts of wetland restoration. *Journal of Environmental Management* 127 (2013) 289-299

⁴⁶ Kiel, A. The Impact of Wetlands Rules on the Prices of Regulated and Proximate Houses: A Case Study. New England Public Policy Centre (NEPPC) Working Paper 07-3 available at: <https://www.bostonfed.org/publications/new-england-public-policy-center-working-paper/2007/the-impact-of-wetlands-rules-on-the-prices-of-regulated-and-proximate-houses-a-case-study.aspx> accessed 24/07/2021

⁴⁷ Lagos Champions Policy on Wetlands available at: <https://www.thisdaylive.com/index.php/2017/01/24/lagos-champions-policy-on-wetlands/> accessed 24/07/2021

wetlands to property markets.⁴⁸ Government policy inconsistency and inadequate legal and institutional framework also contribute, in no small measure, to the subjugation of wetlands to housing development.

4. Wetlands protection: legal and institutional framework

In a terse statement of not more than twenty words in chapter 2; Section 20 the Constitution of the Federal Republic of Nigeria 1999, as amended, provides for environmental matters as one of the fundamental objectives and directive principles of state policy; and by item 60 of the exclusive legislative list to the constitution, the national assembly is empowered to make laws on environmental protection. It is however trite that the provisions of chapter 2 of the constitution, despite its laudable exposition on policy directives, is not justiciable before Nigerian courts.⁴⁹ The provisions of the chapter cannot be a subject of enforceable legal rights until legislated upon by the national assembly. For now they remain in the rem of aspiration and no more; thus there is no constitutionally guaranteed right to environmental protection, including the protection of wetlands. It is however gratifying to note that the national assembly, exercising the constitutional powers under item 60 on the exclusive legislative list enacted the National Environmental standards and regulations enforcement Agency (Establishment) Act⁵⁰ which Act was amended in 2018.⁵¹ The Act established a regulatory agency for the management of Nigeria environment by empowering it to have responsibility for the protection and development of the environment, biodiversity conservation and sustainable development of Nigeria's natural resources in general and environmental technology, including coordination and liaison with relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulations, rules, laws, policies and guidelines.⁵² Though there is no direct provision on protection of wetlands in the NESREA Act, there are enough tangential provisions in the Act and other national legislations⁵³ touching on environmental protection of seas, rivers and natural resources⁵⁴ under which wetlands protection may be surmised. Thus in 2009, the minister for environment, exercising the regulatory powers under section 34 of the NESREA Act made direct regulations⁵⁵ for the protection and regulations of wetlands in Nigeria. It provides for sound and achievable objectives, a permit regime; adherence to Environmental Impact Assessment Act; intergovernmental relationships and collaboration in the management of wetlands; wetlands remediation and restitution; offences and penalties. The regulation provides that best practices shall be applied for the conservation of wetlands of international, national and local importance as ecological systems and habitats for fauna and flora species, cultural and aesthetic purposes, as well as their hydrological functions.⁵⁶ It also advises that wise use of wetlands shall be incorporated into the national and local approaches for the regulation of their resources through awareness campaigns and dissemination of information;⁵⁷ whilst ensuring the sustainable use of wetlands for ecological and tourism purposes for the common good of all citizens.⁵⁸ The regulation empowers the Agency to collaborate with relevant agencies, the State government, Local governments and communities to compile an inventory of all wetlands for determining the purposes of their conservation status and update the inventory as and when necessary.⁵⁹ It also provides for an elaborate consultative and community inclusiveness process for identifying, registration, protection and review of viable wetlands in the country.

The making of National Environmental (Wetlands, Riverbanks and Lake Shores Protection) Regulations is very commendable, particularly being the first of its kind in the annals of wetlands preservation and protection in Nigeria. However, the regulations' viability is deeply premised on States and Local governments support and information supply; which, given the diverse and conflicting interests of States *vis a vis* the federal government on many fronts as relates to resource management,⁶⁰ is likely to impair the success of the enforcement and compliance with the regulations. This position is further exacerbated by the constitutional divergence under which powers to manage lands is residual, whilst

⁴⁸ See generally Doss, R & Taff, J: The Influence of Wetland Type and Wetland Proximity on Residential Property b Values. 1996 *Journal of Agricultural and Resource Economics* 21(1):120-129

⁴⁹ See: Okogie V AG Lagos State (1981) 2 NCLR p.337. see also: Okeke, G.N & C. Okeke, C: The Justiciability of the Non-Justiciable Constitutional Policy of Governance in Nigeria *IOSR Journal Of Humanities And Social Science Volume 7, Issue 6 (Jan. - Feb. 2013)*, p 9; Ikpeze, V.C: Non-Justiciability of Chapter II of the Nigerian Constitution as an Impediment to Economic Rights and Development *Developing Country Studies* Vol.5, No.18, 2015; Otubu, T: Environmental Protection and Human Rights: An Overview of Current Trends 2012 *Journal of Public Law, faculty of Law, University of Lagos*.

⁵⁰ No. 25, 2007. The Act replaced the erstwhile Federal Environmental Protection Agency Act (FEPA)

⁵¹ National Environment Standards And Regulations Enforcement Agency (Establishment) (Amendment) Act, 2018

⁵² Section 2, No. 25 2007

⁵³ See generally: The Navigable Waterways Declaration Act 1985; River Basin Development Authority Act 1986; Petroleum Regulation Act 1988; Harmful Waste Act 1988; Endangered Species Act 1990; Environmental Impact Assessment Act 1992; Inland Fisheries Act 1992; The Water Resource Act 1993; The National Inland Waterways Act 1997; The National Park Service Act 1999; National Oil Spill Detection and Response Agency Act 2006; The Nigerian Minerals and Mining Act. 2007

⁵⁴ Section 8

⁵⁵ National Environmental (Wetlands, Riverbanks and Lake Shores Protection) Regulations, 2009 ...S.I. 26, 2009

⁵⁶ Regulation 3©

⁵⁷ Regulation 3(d)

⁵⁸ Regulation 2©

⁵⁹ Regulation 4

⁶⁰ Okorodudu-Fubara, M: Land Use Planning and Water Law: Discordant Regulatory Provisions on Wetlands Conservation in Nigeria. Presented at IUCN Academy of Environmental Law 2011 Colloquium: South Africa 3 – 7 July, 2011 available at https://www.iucnael.org/en/component/docman/?task=doc_download&gid=936 accessed 24/07/2021

powers on environmental protection are exclusive to federal government.⁶¹ As at 2021, there is no enumeration of any protected wetlands in Nigeria⁶², contrary to the provisions of the regulations;⁶³ saved the list of rivers and lakes in the 4th schedule to the regulations and which list has not been reviewed as provided in the regulations. Thus, at national level, there exist regulations for the protection of wetlands, but the potency of the regulations is in doubt in view of the observed reservations as to its enumeration, viability and compliance. Though Regulation 14 (1)⁶⁴ provides that 'every land owner, occupier or user of property contiguous to a wetland shall have a duty to prevent the degradation or destruction of the wetland and shall maintain the values of the wetland,' it is however not ascertainable from the regulations whether the landowner/occupier has encroached on protected wetlands or otherwise since there is no enumeration and/ or map to depict the wetland zones. Coming down to the State, the Lagos state government seems to have a policy on wetland preservation and protection. In 2017, the Lagos state government developed a draft policy on wetland conservation, protection and management in the State. The fourteen policy statements document which would serve as guiding principles for wetland management in the state was presented to the public on the need to rescue the wetlands from abuse as well as preserve their bio-diversity in the face of adverse effect of urban development. The draft policy failed to emphasize the linkage with NESREA Act and coherent policy directive. Furthermore, five years down the line, the policy remained a draft.⁶⁵

Furthermore, a perusal of the provisions of the Lagos state Environmental Management Protection Law,⁶⁶ with particular reference to the powers and functions of Lagos state environmental protection agency under the law⁶⁷ discloses no reference or mention of wetlands management and protection in the state. The Land Use Act,⁶⁸ the principal legislation on land rights and management in Nigeria (Lagos inclusive), made no reference to wetlands preservation or protection in any of its 51 sections. Curiously too, the Lagos State Urban and Regional Planning and Development Law,⁶⁹ the state's principal law on land use allocation, is also bereft of any cognizable provisions on wetlands protection. The Lagos state government also created a ministry of waterfront with the primary purpose of exploiting the economic benefits of coastal shoreline in the state. The Ministry is saddled with some major responsibilities including development of Infrastructure along the Waterfront in the State; processing of land allocation along waterfront; regularization and monitoring dredging activities along the shorelines amongst others. Unfortunately, the task for the conservation and protection of coastal wetlands was not included in the ministerial responsibilities, giving a lie to the seeming romance between the state government and wetlands protection. Also, an examination of the Lagos state development plan document 2012-2025⁷⁰ did not reveal any government policy direction gears towards wetlands protection and regulation. Given the foregoing facts, it easy to surmise that there is no law or government policy in place for the protection of wetlands in Lagos state. The federal regulations on wetland protection (earlier mentioned) seem farfetched to be relevant to the state and incongruous to be of any benefit for the protection of wetlands in Lagos state. It is therefore no wonder that wetlands are fast disappearing along the shorelines of the state, giving way to several infrastructural development, including real estate. However this ought not to be, for wetlands needs to be protected for its intrinsic value to the environment and nature, particularly when the quest for housing can be addressed without impairing on wetlands or harming environmental interests. Developers can improve existing wetlands, mitigate damage to wetlands, and perhaps create wetlands that can serve the purpose of existing wetlands.⁷¹

The government should address the problem of protection and preservation of wetlands nationally. The federal government, exercising its constitutional powers for environmental protection should, through a law, set up a national commission on environmental conservation and wetlands protection. The constitutional impasse on allocation of legislative powers which currently seems to overwhelm effective and efficient management of wetlands in Nigeria could be addressed by ensuring that state governments are represented on the board of the commission.⁷² The commission should be saddled with responsibility of identifying, classifying and delineating wetlands in the country and ensuring their preservation and protection. The well-funded government commission should engage in nationwide public sensitization campaign to educate and convince members of the public on the need to protect the wetlands and conserve

⁶¹ See the seminal paper by Amokaye O.G on the danger inherent in the decision of Supreme Court with respect to exclusive powers of the state government to manage physical planning in Nigeria.

⁶² It should however be noted that Nigeria currently has 11 sites designated as Wetlands of International Importance (Ramsar Sites), with a surface area of 1,076,728 hectares. See: Ramsar Convention Secretariat (RCS) (2007) Wise use of wetlands: a conceptual framework for the wise use of wetlands Ramsar handbooks for the wise use of wetlands. 3rd edn. Ramsar Convention Secretariat Gland, Switzerland.

⁶³ See: Regulation 4 National Environmental (Wetlands, Riverbanks and Lake Shores Protection) Regulations, 2009

⁶⁴ National Environmental (Wetlands, Riverbanks and Lake Shores Protection) Regulations, 2009 ...S.I. 26, 2009

⁶⁵ See generally: Ogodo, O: Wetland Conservation In Lagos State- Inter-Ministerial Online Discussion available at: https://ludi.org.ng/wp-content/uploads/2020/09/Report_WETLAND-CONSERVATION-IN-LAGOS-STATE-Inter-Ministerial-Online-Discussion-1.pdf accessed 24/07/2021

⁶⁶ 2017 laws of Lagos state

⁶⁷ Section 166 Lagos State Environmental Management Protection Law 2017

⁶⁸ Chapter L5 Laws of the Federation of Nigeria 2004

⁶⁹ 2010

⁷⁰ <https://vdocuments.net/lagos-state-development-plan-2012-2025.html> accessed 24/07/2021

⁷¹ Seltzer E.M & Steinberg E.R: Wetlands And Private Development *Columbia Journal of Environmental Law*1987 Vol. 12:159

⁷² This is to ensure that the interest of the various states and their peculiarities are addressed when implementing the national policy on wetlands protection and to assuage the antagonism that may arise from physical planning policies of diverse states.

the environment. Public support is assured on clear and defined orientation on wetlands functions, their interaction with surrounding environment, and benefits to the society. In fact, wetlands abuse and denigration stems from difficulties to quantify their usefulness and hence are under-represented in land-use or public-policy decisions based on cost/benefit assessment.⁷³ The proposed commission should also ensure effective monitoring of use and management of the wetlands in various states and continually update its data on the current status of the wetlands. Also the commission should design an evaluation method for wetlands area to determine its functionality entitling it to protection, and consider mitigation measures that could help maintain the integrity of the wetlands ecosystem.

At the level of the state, whilst awaiting federal government response as suggested above, the Lagos state government can protect the wetlands, (though not vested with exclusive constitutional powers on environmental protection) by resort to using its planning powers in furtherance of wetlands conservation and protection. The government could deploy tools such as zoning regulations,⁷⁴ land development taxes,⁷⁵ revocation/public land acquisitions, and/or encourage private land trusts. These tools could be used without adverse impact on housing delivery and its prices nor discourage real estate investments. The government should also create a regular forum for interactive interface among stakeholders in the built industry, the government agencies and the public all geared towards dissuading further wetlands encroachment. The problem of land insufficiency for housing that warranted the encroachment on wetlands in Lagos state should be addressed holistically and from multidimensional perspectives, in other to save what is left of wetlands in the state. The government should prioritize housing development as a core policy thrust and provide funding and enabling environment for its takeoff. The establishment of a state housing development bank in conjunction with the private sector and other stakeholders is long overdue. Public servants and private entrepreneurs should be mandated to subscribe to the funds of the bank. Good enough, the state has recently reformed its mortgage transaction law⁷⁶ and established a mortgage board⁷⁷ to provide seamless and efficient mortgage system that could deliver a proficient housing mortgage model to address the funding problems of housing in the state.

With availability of funds, the state should undertake comprehensive urban renewal reforms of the housing sector. Existing towns and cities plans in the state should be reviewed, renewed and upgraded. Mortgage should be provided to owners of single unit households and bungalows dotting the landscape to develop into multilevel properties to enable more tenancy and take benefits of economic of scale. Town planners should be engaged to produce new vertical housing development plans for existing towns, taking cognizance of the state's population density relative to its size, its land mass water ratio, to induce changes in the density of new housing. For example, a 25years urban renewal plan could be designed for Somolu/Bariga to include high-rise multiple residential buildings, commercial centers, malls and open spaces etc. and to be funded through the mortgage system. This will ensure that the town accommodates thrice its current population at completion in realization of the Lagos smart city projects and promote environmental sustainability and land conservation, thus ensuring wetlands preservation. Also, the government should encourage and be involved in the development of new satellite towns and cities on the mainland Lagos to decongest the overpopulated parts of the state so as to ensure the preservation of city wetlands. Urban sprawl, encroaching on wetlands and open space, will reduce where urban corridors with good mass transit and dense but livable housing are provided near it.⁷⁸ This could be done through the provisions of site and services housing schemes; provision of infrastructure and industrial parks in the non-urban and upland parts of the state, excluding the wetlands. The government should in addition address and liberalize the issue of rent control to give incentives to private developers to increase the residential housing stock in the state. Finally, the issue of minimum wage of workers needs to be addressed to increase the purchasing power of public sector employees in order to assure a better yield and contribution to the compulsory housing fund and mortgage acquisition.

5. Conclusion

It is trite that there is housing shortage and land scarcity in Lagos state giving rise to denigration and encroachment of wetlands in the state. It is also found that encroachment on wetlands has not and could not solve the problems of housing shortage in Lagos state, rather such encroachment produces environmental disequilibrium and loss of veritable wetlands in the state. It has also been realized that there is a need to protect the wetlands for their environmental and natural relevance to the ecosystem, unfortunately our laws and policy are weak and inadequate to ensure their protection and preservation, thus the need for a profound policy initiatives, effective legislative directives and radical public advocacy to save the wetlands from manifest extinction. On the other hand, land scarcity for housing in the state is better resolved through a change in government policy directives to ensure proper funding of housing needs; a robust mortgage system; innovative urban renewal strategies and satellite towns development; adaptive building approach that addresses housing density and vertical buildings amongst others

⁷³Sara N: *The War Over Wetlands Issues in Science and Technology*, Vol. 8, No. 4 (Summer 1992), pp. 35-41

⁷⁴ Otubu, A.K: *Conceptualizing Zoning within the Lagos Megacity Project: A Prognosis. Journal of Environment and Earth Science* (2012) Vol. 2, No.10, p 36

⁷⁵ Otubu, A.K: *The Land Use Act and Equity Factor In Property Taxation In Nigeria NAUJILJ*(2018) 9(1) 217-225

⁷⁶ Lagos State Mortgage and Property Law 2010

⁷⁷ Ibid

⁷⁸Harvey, R. O., & Clark, W. A. V. *The Nature and Economics of Urban Sprawl. Land Economics*, (1965) 41(1), 1–9. <https://doi.org/10.2307/3144884>