



Code for a Sustainable Built Environment in Nigeria: A Proposed High-Level Vision of a Policy Framework

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**CODE FOR A SUSTAINABLE BUILT ENVIRONMENT IN NIGERIA:
A PROPOSED HIGH-LEVEL VISION OF A POLICY FRAMEWORK**

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Abstract

The report has outlined the details of Nigeria's current and future policy framework. Building on that, the report then critically reviewed the framework in relation to the approach taken in other regions, particularly the UK. Finally, the report attempted to produce a high level vision of a sustainable built environment policy framework for Nigeria.

If it is agreed that most policies are not focused on the built environment even when emissions from the built environment, as evidenced by cement production, is experiencing a sharp increase, the Nigerian government should make efforts at designing a specialized policy framework for the built environment

Keywords: Policy Framework, Mitigation, Adaptation, Climate Change

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1.0. Introduction

Confronted by increasingly extreme climatic conditions, dwindling natural assets, and all manners of pollution, African countries must go past the idea (or alibi) that economic development and poverty eradication is more of a priority than sustainable development. This is for the simple reason that economic development, as evidenced in developed countries, often becomes threatened by climate change if such development was attained unsustainably (Federal Minsitry of Environment, 2010).

In Africa, climate change poses a great threat to the lives and livelihood of people, organizations and development sectors such as the construction industry (World Bank, 2009) and its impacts are already been felt. Although no consensus has been reached regarding the direct impacts of climate change in Africa, some new trends cannot be ignored. To name a few, the loss of biodiversity, the impact of changing precipitation patterns on rain-dependent agriculture and the potential for human, animal and plant migration in response to climatic conditions. In the wake of these, substantial efforts to mitigate and/or adapt to unavoidable changes must be taken through policies, legislations, frameworks or such other means (Desanker, 2010). After all, a country with ready policies and strategies should, by any logic, be better prepared in tackling climate change impacts than a country with none.

For Nigeria, construction is undoubtedly a key sector of the economy, not so much because of its 3% GDP contribution, but because of its contribution towards reducing high unemployment and

its multiplier effect on other economic activities (NBS, 2014). Unfortunately however, the industry is also notorious for its adverse effect on sustainable development. For example, Nwokoro & Onukwube (2011), reiterating Woolley (2000), maintained that the construction industry remains the leading destroyer of the environment, acting as a main consumer of non-renewable resources, releasing generous waste and pollution to the environment and contributing to land degradation and desertification in no small ways. Armed with this knowledge and with the push by international bodies like the UN and major agreements and conventions since the 1972 UN Conference on the Human Environment, successive Nigerian governments have come up with several policies targeted at improving sustainable construction and development.

The report first outlines the details of Nigeria's current and future policy framework. Building on that, the report then critically reviews this framework in relation to the approach taken in other regions, particularly the UK. Finally, the report attempts to produce a high level vision of a sustainable built environment policy framework for Nigeria, taking into account the mitigation vs. adaptation debate.

2.0. Sustainable built environment: The African perspective through the eye lens of Nigeria.

Sustainable development as a concept encourages countries to attain development by concurrently achieving the goals of an improved environment, a better economy, and a more equitable and inclusive society as opposed to compromising one of these for another (Ilesanmi, 2010). Sustainability has been metaphorically compared to the process of metabolism. Just like metabolism, development within a country is said to be sustainable when inputs (resources) and outputs (wastes) used in the development process are reduced to the bare minimum while, at the same time, the health (growth, GDP etc.) of the country experiencing such development is improved (Ilesanmi, 2010). It is easy to agree that, just as achieving fast metabolism requires strict

eating guidelines, to achieve sustainable development requires well-thought-out policies and strategies.

2.1. Details of the current policy framework in Nigeria

2.1.1. Institutional Framework

Within the public sector, a Climate Change Department within the Federal Ministry of Environment was formed and, also, an inter-ministerial committee on climate change was constituted to drive climate change policy responses and strategies. Realizing that the department may be limited in driving inter-sectorial responses, in 2010, a national assembly bill ([see Appendix 1](#)) was passed for the creation of a Climate Change Commission.

2.1.2. Policy Frameworks

Nigeria has a vision (*Nigeria Vision 20:2020*) to become one of the top 20 economies by the year 2020. The vision has four dimensions and one is the environmental dimension which states the need for an environmental consciousness that enables and supports sustainable management of the nation's God-given natural endowments to ensure their preservation for the benefit of present and future generations. Indeed Goldman Sachs was right in a 2005 publication where it stated that Nigeria would emerge the strongest economy in Africa trailed by South Africa and Egypt. While this is the case now, thanks to a GDP rebasing, many foresee that implementation will be the challenge as Nigeria has, in the past, created similar vision statements only to be abandoned by succeeding governments (Olivier, et al., 2012).

The national adaptation strategy and plan of action (NASPA), a framework which advocates an integrated, a comprehensive, and an all-inclusive ‘adaptation’ to climate change, is being designed to provide a general adaptation framework acting as a tie for other frameworks such as the *National Climate Change Policy and Response Strategy* and the *Strategic Framework for Voluntary*

Nationally Appropriate Mitigation Action (NAMA). Though it has a long-term horizon, it will be updated every 5 years to incorporate new findings.

Nigeria, in response to the United Nations Framework Convention on Climate Change, which *encourages* countries, and the Kyoto protocol which *commits and operationalizes* countries, is also developing *Strategic Framework for Voluntary Nationally Appropriate Mitigation Action (NAMA)*.

While other policy frameworks focus on adaptation measures, the NAMA framework will focus on mitigation measures, thus allowing Nigeria to integrate sustainability with economic development.

From the above, and considering that, in Nigeria, satellite-observed greenhouse emissions from gas flaring is the second largest in the world (Olivier, et al., 2012), it is easy to see that most policies emphasize on the reduction of emissions. While emissions from flared gas far exceeds emissions from cement production (an indicator of emissions from the built environment), emissions from cement production has been on a sharp increase over the years while that from gas flaring has experienced sharp drops in the same period ([see figures 1 and 2](#)). This may be because sustainability policies in Nigeria tend to be in the form of adaptation and because the impact of the built environment is still relatively low (though air-conditioners, for example, are becoming prerequisites for buildings), most policies tend to omit the sector. Compared to the UK which has an action plan specifically for the built environment and dedicated institutions such as the Green Construction Board, sustainability within the built environment in Nigeria appears not to be given the attention it deserves. This however is not peculiar to Nigeria alone. Even with the policies created by many African nations to address sustainable built environment, the institutional and legal frameworks are often poor. For instance, policies on land use are often disjointed and address land use matters in broad and often non-detailed ways (UN Economic Commission for Africa, 2005). Policies such as the one proposed below should enable the governments to focus on mitigating impacts of climate change as opposed to focusing only on adaptation to the impacts after their occurrence.

Nigeria - CO2 Emissions from Fossil-fuel - Emissions from cement production

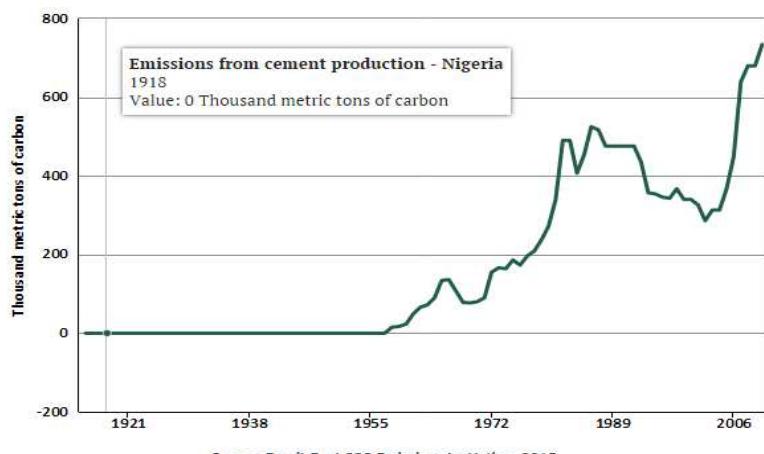
734(Thousand metric tons of carbon)
in 2010[Compare](#)[Export](#)[Explore data](#)[Embed](#)[View Ranking](#)[View Map](#)

Figure 1: CO2 emissions from cement production in Nigeria. Source: World Data Atlas.

Nigeria

► Location

▼ Variable

- Type to filter
- Total CO2 emissions from fossil-fuels
 - Emissions from solid fuel consumption
 - Emissions from liquid fuel consumption
 - Emissions from gas fuel consumption
 - Emissions from cement production
 - Emissions from gas flaring
 - Per capita CO2 emissions (metric tons of carbon)
 - Emissions from bunker fuels (not included in the totals)

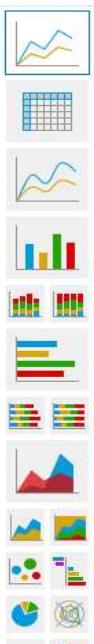
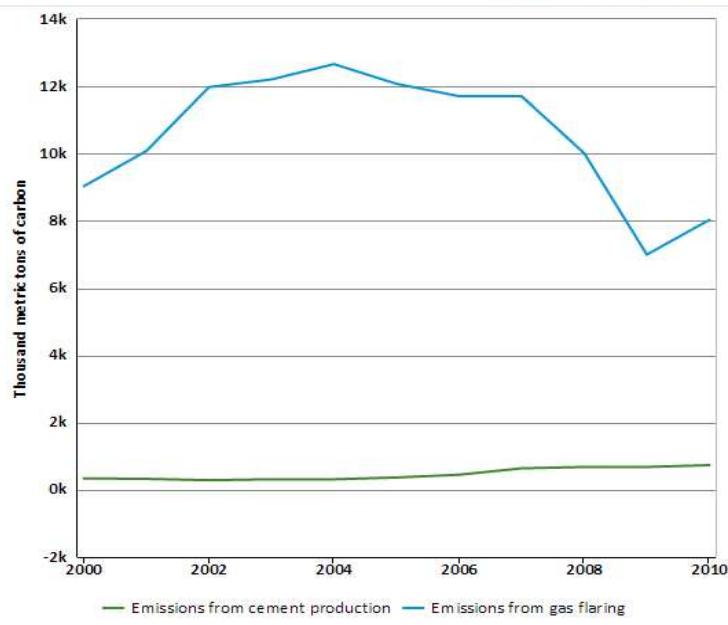


Figure 2: Emissions from gas flaring and cement production in Nigeria. Source: World Data Atlas.

3.0. Code for a Sustainable Built Environment in Nigeria: A proposed High level vision of a policy framework

- 3.1. A new code for sustainable Built environment should be developed in close consultation with a private (and not public) organization that will work in partnership with an international body experienced in similar works such as the UK Building Research Establishment (BRE).
- 3.2. This is to by-pass the bureaucracy common with public institutions such as the Nigerian Building and Road Research Institute (NBRI) (Ilesanmi, 2010). Also, private and independent institutions are better suited to design the code in a market focused way.
- 3.3. The code should be set above and closely linked with the Nigerian National Building code, the minimum building standards recognized by law in Nigeria (see figure 3).
- 3.4. The framework may be based on a rating system, which will be based on a rigorous scientific research carried out to formulate construction and design standards. The findings should be communicated openly and in a way that will be easily understood by everyone in every community.
- 3.5. For residential homes or small construction projects, compliance with the code may be determined by market forces. Same may apply to small and medium scale office lettings or construction projects up to a certain threshold. Above that threshold (say revenue or budget allocation threshold), compliance may be made compulsory. This is to encourage innovation and entrepreneurial ideas in the building of sustainable homes and construction projects in Nigeria.

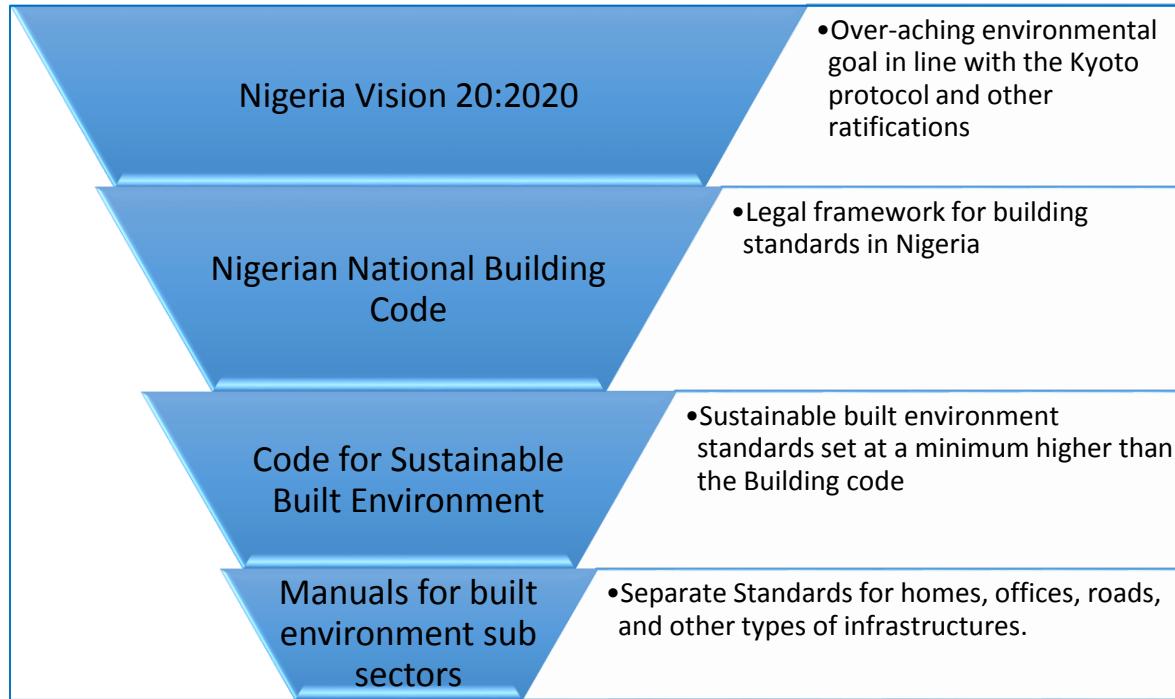


Figure 3: A proposed sustainable built environment policy framework

4.0. Conclusion and recommendation

The report has outlined the details of Nigeria's current and future policy framework. Building on that, the report then critically reviewed the framework in relation to the approach taken in other regions, particularly the UK. Finally, the report attempted to produce a high level vision of a sustainable built environment policy framework for Nigeria.

If it is agreed that most policies are not focused on the built environment even when emissions from the built environment, as evidenced by cement production, is experiencing a sharp increase, the Nigerian government should make efforts at designing a specialized policy framework for the built environment such as the one proposed in this report.

The government should also go past adaptation policies and focus as well on mitigation policies.

To do this, emphasis must be placed on the built environment.

Finally, designing policies and framework does not translate to action and implementation. The policies and frameworks should incorporate clear directions as to how they're to be implemented.

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