

# Anti-Democratic Spaces and Impoverishment: Roads in Low-Income Residential Neighbourhoods; Drivers, Impact and Way Forward

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## ABSTRACT

 This article identifies the low-income group as eco-friendly in terms of their favoured transit systems. Despite the group's eco-friendly and sustainable attributes, they suffer the most in their use of urban spaces, in low-cost housings and in transportation planning, in particular the roads. There is corruption among others who push for road dominance in the infrastructure. There is a call for action in developing the following: greater transparency, democratic approaches, and compact developments with a rich juxtaposition of greenery enhancing pedestrian corridors. Community spaces connecting working areas with the Central Business Districts (CBD) and high densities residencies to be developed are popular and more sustainable options. A pragmatic contextual sensitive approach is demanded. Downsizing road networks within low-income neighbourhoods can empower the poor and their community, while simultaneously mitigating the risk of corruption generated by the development of roads. The problem is global; operational, managerial and strategic in scope with the capacities of enterprising urban poor being wasted in urban-city governance. The recommendations target stopping the conversation of critical government policies into mere rhetoric. Flooding, housing, education, and public health were identified areas for strategic intervention. The Rand study and a review of the DG SANCO EU report was adapted as the approach to this research. 'Co-competition' and collaboration among government authorities, built-up professionals, and inclusiveness of targeted population remains imperative; even so, the review of academic curricular and methods towards environmental leadership for sustainability shifts from planning for cities and cars to planning for humans.

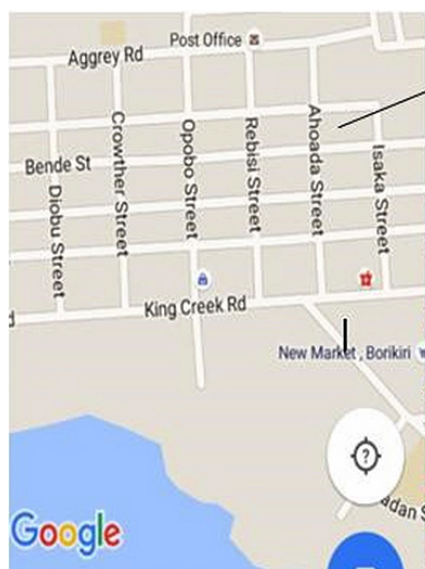
**Keywords:** *empowerment, unintended consequences, deprivation, sustainability, anti-democratic, road intensities, cities for cars, inequality*

## INTRODUCTION

By definition, a low-income group, indicated in the article, refers to those living under US\$5.5/ daily and "... nearly half the world [population]" according to the World Bank Group (2018). By 'road intensity', the same article refers to the area or space roads occupy per city plot. The concept of relationships of roads to population and space helps elevate stakeholders sensitivity the impact roads have on districts and consequently leads to evaluating appropriateness of road areas in compact developments. Today, neighbourhood design and planning standards recommend 510 percent of total landmass for vehicular circulation and services. This is common practice, but there is an even higher value for low density areas in Nigeria. The City of Red Deer Neighbourhood Planning & Design Standards, published in October 2013 (Pp. 6, 4, 31, 34 & 35) may be excellent in term of mix uses but in the opinion of the article it offered high values of 'road intensity,' (Allison 1999). Likely, 'y' >= 15-20sqm per section: assumption and calculations based on practice in Nigeria fig.1 (high density plot is 450sqm and roads at 60m intersection intervals). In the USA compact development ranges between one to seven dwellings per acre (i.e. 578sqm per plot), (Tom and Katherine 2014).

Public health and physical activities are positively related. In Nigeria existing opportunities, like waterways and urbanites, who are predominantly pedestrians, are hardly considered a healthy advantage. Authorities, including WHO, Crawford (2018) have stated the public health benefits of a10000 steps, or more, of brisk walking or 8km-15km walk daily-weekly. This statement was made in response to the rising incidence of obesity among children and the threat it imposes on families, society, and the economy (Crawford 2018; Vina et al., 2012 cited Hippocrates (460-370BC; Galen (AD 129210); Speed & Jaque 2010).

Due to page limitations, road impacts and recommendations shall be considered and discussed under four headings. The focus will be on low-middle income residential neighbourhoods and their deprivations. It is hoped that a better understanding of the issues and situations will influence the minds of policy makers, designers, regulatory agencies, legislators, and city managers to rethink the planning of both; the need for urgency and the areas' needs. The purpose of this research is basically strategic; identifying transportation types required in low-income residential area and what a democratic infrastructure means. This article's findings are geared towards cost effectiveness,



Unsustainable roads in "Town"  
axis of P.H. for democratic, eco-  
friendly & humane uses



(a)

(b)

Figure 1:  
Obsolete standard (a) high road exposure per bed. (b) Artistic impression of reclaiming road space for more humane use. Credit: Allison

flood risk management benefits, including practicality of public policies on low-cost housing, preventive environmental injustice and ownership.

## METHODOLOGY

The scope included a quasi-experiment to validate findings of an earlier study: the Federal Housing Authority (FHA) , State Owned, and Private Residential Development, Traditional Towns (Nembe and Opobo Kingdoms) researched in 1999 MSc Thesis. Simple qualitative and quantitative methods were employed, while the Judgment Sampling technique and photographs helped kindle emotions and elicit requirements. WhatsApp social media, Google Earth, Google Scholar, JSTOR among others were useful. A bottom-top and top-bottom approach was adopted by careful selection of those affected and those who are policy makers for interviews and conversations. An existing list of teenagers, adolescents, professionals and associates and friends was used. An Indices of Multiple Deprivation (IMD) used by the UK Transportation Department and the Rand study report on DG SANCO EU document were influential. The findings were compared for any deviation in choice and perception of infrastructure in the urban space between the findings of MSC Thesis 1999 and now.

Limitations: number of pages, time, and logistics.

## REVIEW OF LITERATURE

### Democracy:

As a very popular word, it used to describe one of the world's most prevalent systems of governance. According to Political Science Degree online educational site publication of August 24 2011, democracy ranks at the top of "... the five most common political systems around the world"; widely practiced are direct or representative democracy. Nations like Nigeria, USA, UK, India, Japan, Australia, Russia and most Western nations practice democracy. Exceptions are China, North Korea, and Cuba, where Communism is practiced. Democracy a system of governance "... of the people, by the people and for the people." Everyone has power and a right to vote and be voted for; to be trusted with the power of government by the governed through transparent process; a representative democracy.

### Democratic Infrastructure:

From the above, in terms of developmental projects, the term democratic can be an adjectival qualifier if the infrastructure choice for development for the people is determine by grassroots participation or through elected representative with the sole purpose of benefiting the people. Gilman, Rahman & Souris (2018) supported that view when they stated, "Civil society organisation and local government should build more long term and durable democratic infrastructure, with the aim of empowering constituencies to participate in meaningful and concrete ways, overcoming division within our societies, and addressing a general distrust of government by enhancing accountability." Thus, democratic infrastructures should intrinsically enhance accountability.

However, infrastructure herein shall be considered the physical infrastructures like housing, roads, etc. So, what are (i) the people's most pressing need for self actualisation and healthy living? (ii) how have roads, as an infrastructure, impacted these pressing needs? and (iii) how are infrastructure choices made? From the research, collective choices can be identified by:

- Contracting experts to conduct a research to arrive at a conclusion that will be use to form policy and design decisions.
- The agency itself can conduct primary research on targeted populations using conversations and questionnaires, and social media (gaining attentions as means of information, e.g. twitter.).
- Data Governance (DG) is key for effective and impactful outcome of either ways above.

The development pathways, rules, regulations, funds sources, products managers, target population, and penalty for defaulters can all be investigated, evaluated and agreed upon. Projects that positively affect the majority of the population and choice determined by the majority of the population can be qualified with the adjective "democratic," and with mass participation and openness, accountability is intrinsic.

### Making Good Choices:

Some scholars think the poor cannot make good choices, a statement of which this article disagrees.

Karnani (2009) stated, “... *but poor people face far worse consequences for their bad choices*,” while they “... *face fundamentally different social, psychological, physical...*” requirements and yet “... *the poor have the right to determine how to spend...*” The few factors the articles identified that influences people’s choice includes the level of education, income, available information of infrastructure, perceived benefits, windows for participation, and if participation actually accounts. Nevertheless, they can make good and sustainable choices, too. Elsewhere describing the poor’s capacity to make choices, Karnani citing a professor C.K. Prahalad, stated, “*[the poor are] resilient and creative entrepreneurs and value-conscious consumers.*”

## Resilience:

With the growing inability to provide basic requirements for their families, those who are the poorest and have a low-income have creatively devised or adapted to less expensive, yet healthy life styles, for their families. For instance, the following measures are taken: with a scarcity of water they harvest waste water from baths for toilet use; they use cheap mass transit for very long distances and for short distances they walk; for some very long distances they commute and walk. While in coastal communities, transit could be a combination of paddling, walking, and commuting, be it for work, school, or leisure. The same actions follow with changes in energy prices and transport fares. Another cost-effective practice is sharing facilities when there is an increase in rent or an increase in

the population growth rate, fig. 2(a) & (b). This attests to good decision-making abilities and entrepreneur traits of the poor and low-income group, contrary to some scholars and policy makers’ thinking as mentioned above.

The poor and low-income as pedestrians is not endemic to Nigeria; even so, they face several crises. Chamie (2017) noted a rising homelessness crisis in big cities across the world including US, and UK. Scholars like Ashraf , Eid, Grivna, et al.(2012) and Eid, Hani O., Peter Barss, Shehabeldin H. Adam, et al. (2009) in separate studies noted that the low-income group are predominantly pedestrians and cyclist, yet they are also the highest victims of traumatic experiences arising from road use, even in high income developing nations like the UAE. The Watch Tower Bible and Tract Society of Pennsylvania 2019 published, “Some 500,000 people worldwide are killed in road accidents annually, and another15 million are injured, some horribly”, fig. 2(c).

## Road Dominance:

Evidence shows roads are the dominating selections in the circle of infrastructural developments in all tiers the Nigerian government, and her development agencies. The Senate minority leader Godswill Akpabio was cited by Ajikobi 2017 to have “Urged less spending on recurrent expenses such as salaries so as to free up money to spend on power, railways, and roads.” According to Odunsi (2018) daily Post, and HousingNews 2019 reports “Nigeria 2019 Budget Breakdown for Roads, Housing and Power,” roads dominated: in 2019 (N344/N2870 billion to road and N26.7/N2870 billion to housing); in 2007 (N57/N215 billions to road; in 2006 by the

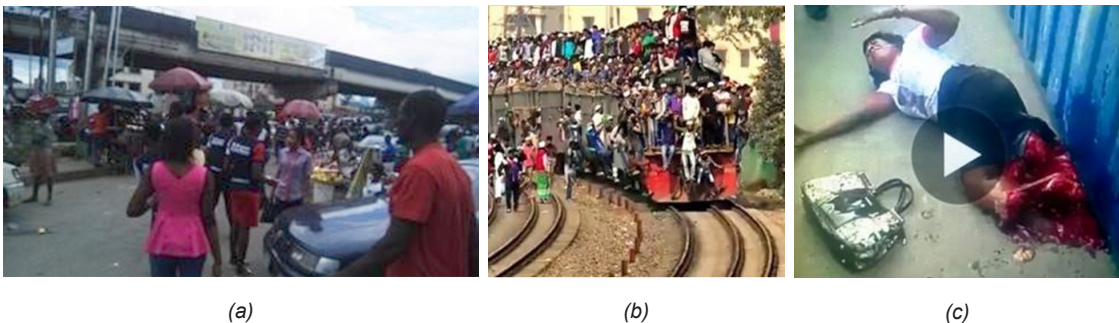


Figure 2:  
The City Builders and Victims. (a) Port Harcourt. (b) Bangladesh. (c) Pedestrian and vehicular circulation conflict.  
Photo credit: Allison & Anita Bala J.



second quarter 71 percent of road budget has been released; and “The Project of the Century” China’s USD900 billion Belt and Road Project targeting over 100 countries. The Nigerian Sovereign Investment Authority website identified eleven areas with five core sectors, motorways was the top sector, fig.3. This was further supported public perception by 60 percent of respondents, who mentioned roads (“in my community”, “where I live”) as key evidence of government presence in their area when asked, “How

best have you experienced government presence?” Although elsewhere 80 percent acknowledged the same roads were all in a terrible state no more than two years after completion.

## Motivation:

Roads are making headlines in newspapers and political manifestos. Lack of leadership and

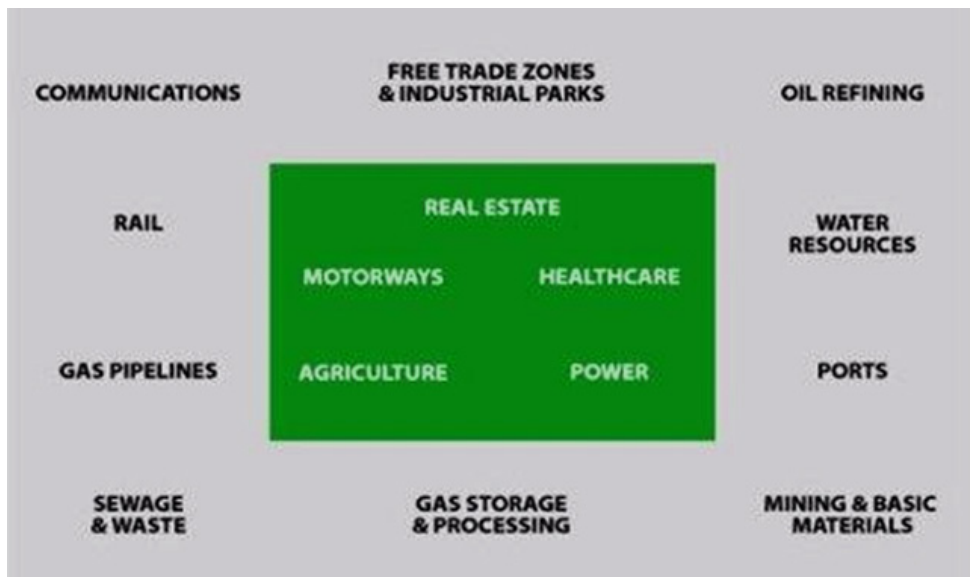


Figure 3.:  
5-Year Plan: Choosing the Focus Sectors. Source: NISA 2016.

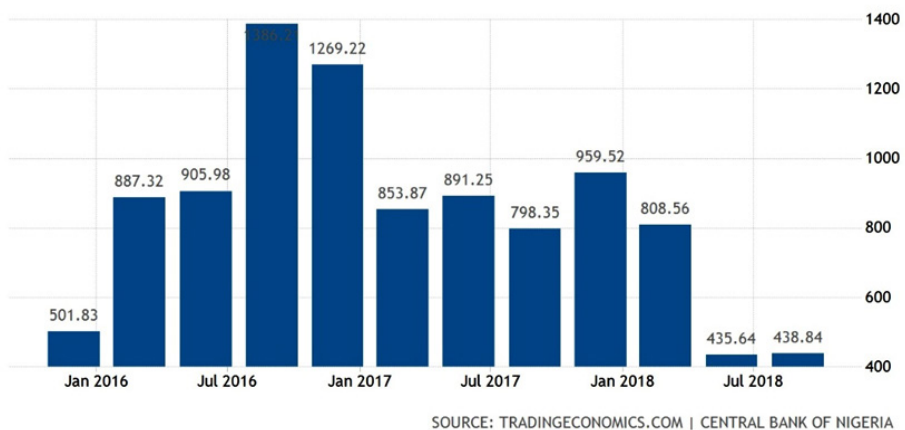


Figure 4:  
FDI Chat. source:<https://tradingeconomics.com/nigeria/foreigndirect-investment>



Figure 5:  
Active transit system: China suspended bicycleway separated from road transit. Photo credit: (b) Anita credit to World Economic Rorum

corruption were identified as the reasons and are not endemic to Nigeria, (Dogara 2019), Bukukuluki, Paul (2013), Ejue, Egberi Anthony and Madueze, Madumelu C.2014). After oil, road construction firms make the list of the top choice by private enterprise ownerships among politicians and those within the corridors of power. This was not because they have professional skill aligned to the industry or they are really committed with roads as social development tools, but with the incentive of zero accountability. No professional or contractor were ever jailed due to bad roads and associated accidents. This is supported by Adetayo (2018) when he said, cited President Buhari, no road maintenance project has been done since 1994-1996. But in July 2007, “N300bn has not been seen” was defended before a senate committee as funds spent on federal roads by Chief Tony Anenih, Minister of Transport under Obasanjo Administration.

## CASE STUDY AND FINDINGS OF QUASI EXPERIMENT

While some finding has been discussed above, others deserve mention.

### Federal Housing Estate Woji, Port Harcourt

In Woji Federal Housing Authority Estate, Port Harcourt, the roads are no less than 18meters wide yet it is a low-income estate, with plots measuring 12mx 10m per family. While some families whose incomes have improved, rather than relocating, thus giving other low-income families an opportunity to affordable shelter, have chosen to remain. Among other reasons for their staying, the road network is the key factor. Buildings are modified or demolished for luxurious duplexes thus attracting other high-income groups who acquired more multiple plots and demolished the original 1 or 2 bed room flats for luxury duplexes, (Fig. 6 is Road 21 Plot 17A and B.) The luxury duplexes coupled with the road made this an attractive site. Looking at Fig.8 and Fig.7, without a doubt, one can judge it is a high-income area and modern city, but roads must not be the sole principal basis for such modernisation assessment.



Figure 6:  
*Hostile Takeovers. FHA Woji Estate. High-income families are attracted by high road networks in low-income areas. Low-income families are displaced by compulsion (landlord/tenants) or inducement (landlord sold & transfer ownership). Photo: (a) Allison.*



Figure 7:  
*Cities for roads not human.*  
Photo: Anita Bala J. Credit to Zenith Bank.





Walkway simple an descent.

Roads with over, 50 homes / 1km displaced, stakeholders families homeless

Automation & high skill left many artisan unemployed

Figure 8:  
A typical local street in Asokoro District (Source: Jibril, 2006)

“Where would you like to live, and work?”, using Whatsup social groups platform, the question was sent to 1000 people, cutting across different demographics that included peers and policy makers, and across geographic locations, but all in Nigeria. Fig. 9 was sent to the respondents without naming the locations to avoid possible bias.

**Result:** Fig. 9(a) was the most preferred by 85percent of respondents with a relatively even spread across the demographics, geography, professionals, policy makers/influencers, and teens.

## Future leaders and sustainability agenda:

Urban and Town planning students’ academic projects were examined across tertiary institutions in Port Harcourt. Below are typical presentations for residential middle-income and low-income neighbourhood planning and modelling, Fig 10.

**Result:** Inadequate sensitisation of alternative transit systems and benefits among the students concerning environmental, health, economic and



(a)



(b)

Figure 9:  
Amsterdam Lagos State civil servants (middle-low income) housing by Governor Ambode 2017.  
Photo: (a) Anita with reference to AJP



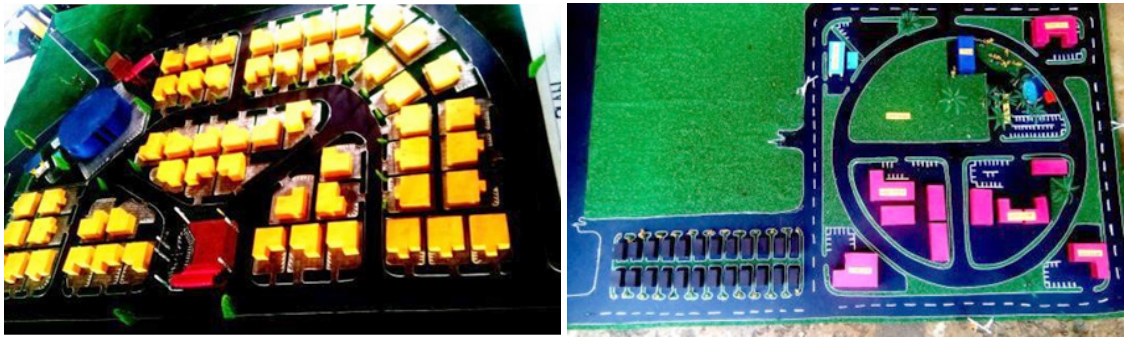


Figure 10:  
Unsustainable Residential Planning: road 5-10% in low income residential planning: a typical Students Projects.  
Source- Allison

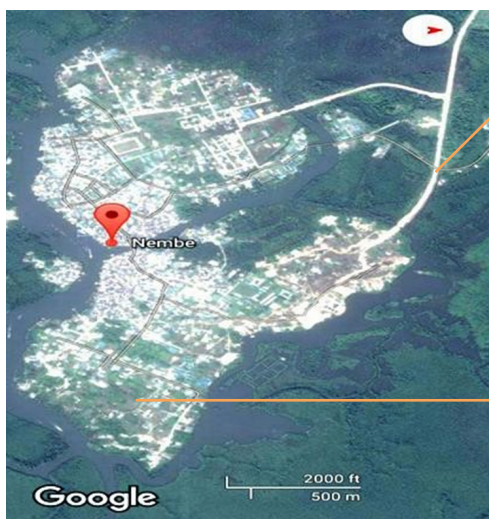
social issues. Meaning SDG may not be sustainable due poor leadership.

## Traditional settlements:

The Kingdoms/ancient cities in the states of Nembe and Opobo were examined. The inhabitants in both cases are widely travelled and educated. Professors and fellows of Ivy leagues institutions, successful academics, business men and banks' CEOs were targeted for this study. Other than the absence of electric power, security, and the presence of oil

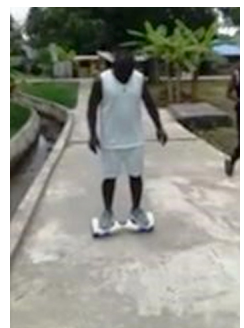
pollutions, they were satisfied with what the city states offered.. Fig. 11 below is Nembe, a sustainable development model to follow for new cities and for the remodeling of old towns. The illustration shows road "Y" connecting the two major Nembe towns, like lungs, to other towns and to Yenagoa, the capital city. Every other movement within Nembe town is by foot, His Majesty inclusive.

**Result:** Human are naturally bipedal and love to walk for nearly all purposes, even exceeding the suggested healthy 4km daily, until they are forced to think otherwise.



Roads linking Nembe to Ogbia town, Yenagoa, etc.

3-4m wide paved conc. Pedestrian network



(a)

(b)

Figure 11:  
Planning Intra & inter urban transit systems. (a) Nembe (b) Okpoama a Nembe speaking town.  
Photo: Allison 2017.

## Azikoro estate, typology for most cities in Nigeria

Although personal visits and measurements were contributed by residents in Yenagoa, an analysis was carried out on the Googled images of Azikoro Residential Estate, Yenagoa Fig. 12. The roads at 30m x 60m grids with 450sqm per plot; 54000 m<sup>2</sup> plots for human habitations (here after called "plot"); roads = 30960sqm. Ratio (road: plot) = 0.573. Landmass= estimated 85000sqm (100%); Percentage (road) = 36.42% (statutory standard 5-10%); with no existing dedicated walkway or bicycles corridors, fig.13(c).

**Result:** The observed trade-off for 30960sqm road area:

The opportunity cost are the active transit systems for all internal movements with well-coordinated open and play areas, plus over 300-400 homes (100sqm/home), see <https://youtu.be/UMqOgRmVjAI>, <https://youtu.be/WdnL61qZQ>, <https://youtu.be/owb9Q0XaF6s>.

**Merit:** Good East -West orientation for ventilation.

**Demerits:** Residential high road intensity (road area per designed bed): 30960/360 beds = 77-86m<sup>2</sup>;

outright disregard for site opportunities (shape, clarity, & alignment with major road). A regimented layout with no play areas, but incidental patchy off-cut open spaces without visual appeal. Master Plan ignored.

## Okilton-Okania Estate:

The estate is located within the Rumuokwuta axis of Obio-Akpo Local Government Area of Rivers State and is a self-help project, except for intervention of roads projects by NDDC and the LGA. Fig 3 (a), (c)

## DISCUSSION

Roads are a symbol of modernisation, yet when they are accorded too much preference, they may be dangerous to cities. The design principles of balance, scale, clarity, dominance, and hierarchy help "To place the elements together to build... [cities, urban centres and towns] optimally," Teo Siang (2019). Only research-based planning and designing can meet user experience by designing around users' sustainable requirements. This can be accomplished while keeping it simple for easy understanding and safe, effective use; a view supported by Teo Siang (2019) in the same



Figure 12:  
Azikoro Estate Yenagoa: occupied government-built bungalows. Photo Allison /Google





Figure 13:  
Trade-off: roads vs garden walkway. (a) Okilton/Ehio Okania road completed by NDDC. (b) The same road less than 1.5years. (c) Opportunity cost: Excellent, longer lasting and mileage pedestrians' corridor. Photo: Anita Bala J ; Mabel



Figure 14:  
Designed for accident: 4-lane vehicular way becomes "Ground" or "negative space" of the Walkway. "Figure" or "positive shape" PH. Solution: the green lawn on the left should be a separate walkway and segregated from the road. Photo. Allison 2019

publication. Fig 14 epitomises the confusion and danger in designing and otherwise generates a chaotic misunderstanding of the urban space for vehicular, both heavy and light vehicles, pedestrians, and for cycling. KISS ("Keep it simple, stupid") as a design principle does not mean throwing every element into space without thinking, as demonstrated in the preceding pictures.

Designing for pedestrians' needs and requirements can be very depriving even though the elements of visual design are well utilized. As indicated from the above literary reviews and case studies, the poor balance of space or road dominance in low income areas have led to unreceptive takeovers. It attracts high income, domineering groups who demand more roads; the poor cannot compete with these powerful groups to gain safe pedestrian walkways.



Road choice development can deter the inflow of FDI. Carelessness on how and where public funds are actually spent can deter FDI inflow. A view supported by Godinez, and Ling Liu (2015) when they stated, "Corruption deter FDI....", Elsewhere in another study Godinez and Liu (2015) stated that, "Corruption has asymmetrical impact on FDI... corruption distance [is] a key determinant of FDI when investing in a highly corrupt host location where democratic process are violated with tools of secrecy/ confidentiality." Regrettably, building roads has been a very viable channel for the misappropriation of public funds. The problem is not endemic to Nigeria and shall be more appreciated when looking at the global war against poverty and known forms of deprivations.

Mendes, et al. (2018) asserted is that, "Corruption facilitates FDI by oiling the wheels of transaction..." The China "Belt Road Initiative" with promise of harmony and prosperity has been branded "a new vision for colonialism", and "predatory lending" by a USA diplomat and the Malaysian Prime Minister, and another protest was launched by the action of Turkey, according to Ang (2019). Meaning roads are being used politically by nations to enslave others. Fig.15 shows homes of low-middle income groups with bad floors, broken lights and poor bathing facilities. These photographs give insight into the misplaced funding that is used for the unsustainable position

of roads, compared to the costs of maintaining quality lights baths, and floors in low-middle income neighbourhoods. Dwindling government resources are used for road maintenance instead of low-income home maintenance.

Another example of political choices is the call for concrete roads in Nigeria. That means using roads to raise the demand for cement with eventual high profitability for cement producers and dealers. But this consequently adds to the non-affordability of homes due to higher income residents' demand for homes near/on cement streets Including demand pressured escalation in cement/chippings prices.

Diaspora remittances needs to be considered too, as means of infrastructure financing. In Nigeria, remittances of USD 22 billion annually is expected to grow according to World Bank 2018 report. This can build nearly twice the ongoing ultra- modern USD 12billion Dangote refinery in Lagos with a high profile of social-economic and political profitability. In another perspective, USD22bn profitable investments in Nigeria can be financed by common Nigerians, This example points to poorly considered, harnessed, and invested remittances by leaders.

More so, remittances are sent to buy land and improve quality of lives of families back home. Investing in walkways corridors, with skating shoes,



Figure 15:  
Insight of Low-Middle-Income Maintenance Culture: interior of homes. (a) Bath-room, (b) Bed-room, (c) Balcony.  
Photo: Allison.

bicycles to hire with cleaner air, gardens, safer, better secured and better health with USD22bn would be historic and like the Dangote refinery with profitability and social impact, with a better sense of ownership rather than looking at depriving institutions like the Paris Club.

Further avenues of deprivation by roads are their terrible state with attendant socioeconomic cost. Three instances:

- (i) Malaria treatment and deaths due to stagnant waters.
- (ii) Impassable roads eventually lead to Ghost Street and crimes.
- (iii) (ii) Relocation of business due to bad roads, crimes and poor patronage. These actions readily depreciate the consumption abilities of the inhabitants and the economic worth of the neighbourhood, Fig 13 and Fig.15.

Predominately pedestrians and mass transit commuters suggested development scopes clearly. They are the majority of the population and, as such, ought to decide infrastructure choices in a democratic and sustainable sense. According Kanayo (2014) citing the Nigerian Bureau of Statistics, "That the inequality and poverty is deep and pervasive with an estimated 70 percent of the population living in poverty." The poor make 53.5 percent of population in 2009 (World Bank Group). Kochhar supports the idea that the poor are in the majority in his statement, "The vast majority of the world's population lives on budget that falls well short of the poverty line in advanced economies. Specifically, 4.4 billion-71 percent of global population of 6.6 billion-lived on USD10 or less per day citing Pew research Centre....", Fig.14.

Nevertheless, in the sense of economic and social deprivations due to unsustainable roads network in cities, the people have not stopped complaining. For instance, Shara Reporters on July 25 2018, stated "The multimillion-naira Jesse-Boboroku Road in Ethiope West Local Government Area of Delta State, collapsed barely one month after it was commission...[ due to] ...use of substandard materials." Therefore, reasonable evidence has linked roads to deprivations. By building roads, public officers have become rich at the expense of the people's businesses, environmental and health interests in nations without political will, a strong sense of accountability, strong institutional monitoring and controls.

Also, identified were operational, managerial and policy lapses involving cities' managers and developers, specifically those choices geared toward sustainability. A view supported by other research Allison (2015, 2018).

Pedestrian and cycling routes and activities are part of the transportation systems available to humans which have the least negative impact on man and the planet. This was the position of 65 percent of respondents in a quasi-experiment carried out for this research. Other interesting findings of the quasi-survey were the insignificant deviation from the MSC Thesis (1999) findings. For instance, in listed and ranked choices: "...safest means of transportation?" the same percentile distribution was noticed. The following results are listed from most popular to least popular:

- Paddling-canoe, walkways, skating shoe, bicycles were in the top 25 percentile in frequency
- Rail/train,
- Water/speed-boat, flight.
- Road/cars-buses were in the bottom 25 percentile in frequency

While 63 percent average ranked, in order of positive impact and patronage, as against 61percent average of total respondents in 1999 study:

- i. Walkway.
- ii. Paddling.

Bicycle. iv. Skating shoes with an increasing popularity among teens and adolescents.

Both findings recorded a similar distribution but for GHS dropping behind fatal accidents as leading reasons for the above ranking/choice were ranked:

- i. Cost effective,
- ii. Financially sustainable/rewarding
- iii. Promotes health
- iv. Near zero fatal accidents,
- iv. Least GHG emission or Carbon foot print

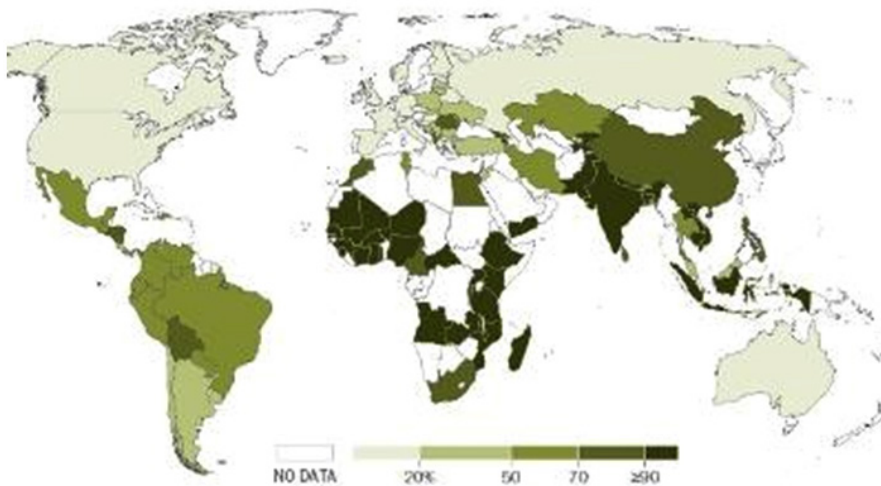


Figure 16:  
Vast Majority of People in African and Asia Nations are poor or low-income. % of Countries populations that lived on USD10 or less per day in 2011. PEW RESEARCH CENTER. ( Rakesh Kochhar 2015)



Figure 17:  
Eco-centric urban renewal and development artistic impressions: (a) Old PH-Township. (b) 4km<sup>2</sup> exclusively active transit walkway & peripheral road at 2km centres (gridded). Credit: Allison



**Table 1: Strategic Intervention & Problems**

Stakeholder	Policy Intervention area	Problem	Remark		
Public health authorities	Toward behavioural changes, sustainable public health by cleaner environment and physically active living.	Preventable but rising obesity, suicide, car accidents, fumes and related illness/ deaths among urbanites tied to roads.	Suicide due to depressive stress can be relieved by exercise, walking and communications.		
Educational authorities	Academic Curriculum review towards greater & responsive impact	Non responsive skills, knowledge, attitudes in fast changing societies.	Innovation/Creativity required: plenty walkway corridor + green lawns + drainages are cost effective means to pedestrian safety, storm water percolation and flood control		
Emergency /flood management authorities	Flooding Risk Management	Disappearance of cities' ecological reserves, accidents, blocked drainages and hard landscape make city life hell: flooding and erosion due to roads.			
Infrastructure/ Housing planning and development authorities	Reclaiming Road Space for more humane uses	Over provision of roads with automations demand fuelling inequality and increasing unemployment by income disparity and high-skills demand in poor–middle income low-skill neighbourhoods; attendant displaced families by road space.	Road, Housing & Power are like 3-phase in electricity. Asymmetrical budgetary allocation is not sustainable for developing economies.		
Regulatory authorities/ Professional Institutes	Review Standards (e.g. 510% of landmass for road is too high); incentivise/ prioritise/promote walkways in the mix of transit systems in city/ urban/ town/ estates must.	High “road to bed exposure” (‘road intensity’) in low income neighbourhoods with attendant avoidable deprivations.	Blockchain Technology as more transparent, inclusive, cost effective means to manage & balancing development choices.		
Central data centres	Data Governance for infrastructure provision: Policy toward agility, inclusiveness, objectivity, & automation.	Non responsive and readily manipulated data; centralised politicised systems as bane to effective planning and impact investment decisions.	Prioritise low skills & labour intensive methods in low-middle income neighbourhoods roads/ walkway etc.		
INCOME GROUPS.					
Poor	Low-income	Middle-income	Upper-Middle income	UpperMiddle income	Source
0-2	2.01-10	10.01-20	20.01-50	50.01 above	Pew Research Centre 2015
Less than US\$1.9 daily is “Extreme poverty” and ending it by 2030 is a World Bank commitment (Jim Yong Kim cited 2018). Sub-Sharan Africa region with the largest number of extreme poor.					

## THE WAY OUT

So far, the problem has been extensively painted and it is wide spread. Irrespective of geographical location, both the low-income and poor are pedestrians and mass transit commuters, and they constitute the majority of the population globally. Rakesh Kochhar (2015) cited that Pope Francis, in March 2013, to have stressed, "The need to reverse the structural cause of poverty cannot be delayed while referring to inequality as [the] root of social ills". In another article, Pope Benedict was quoted to have said, the problem is a "...moral obligation" and for Christians a "commitment" to ensure the poor and low-income as the focus of development agendas. Dabla-Norris et al. (2015), in an IMF authorised publication, demanded that the focus on the poor and middle class as "... the main engine of growth" by global policy makers and researchers alike. This is because in these classes their income increase, unlike the rich top 20 percents' income increase, will lead to better GDP performances, growth and distribution. The article argues that by not imposing projects on a people, no matter good it may look, is a way to restructuring root causes of poverty.

The deprived have cried, their demand is their own space as described by the likes of Virginia Wolf and Katherine Mckittrick, who cites in *The Social Production of Space*, (2014), extrapolated, they argued that the poor-low income community needed "... a room of ..[their] own, guaranteeing an amount of privacy, identity, and seclusion historically unavailable to them."

More so, this article agrees with the concept of "Space and time is socially produced through patterns of production and consumption that still continue today," Anthony King cited in the same Gieseking and Mangole edited 2014 publication. Some cities have shown good examples from which other cities should be motivated, inspired, adapt and emulate. Few recommendations and Table 1 with policy areas and interventions strategy are given above.

## RECOMMENDATIONS

- Promote greater involvement in professional institutes, professionals and the host community in monitoring and controlling infrastructures and the strategic functions of urban transit systems while preventing asymmetric road dominance.

This can be done by promoting new standards with enforceable legal backing for a balanced mix of infrastructure for sustainable development and use in cities.

- Review current strategies with a view towards empowering the housing rights of the poor, developing flooding risks management, generating programmes for public health risk control, and creating agile educational systems.
- Promote community ownership of urban infrastructures and urban friendliness among urbanites through inclusiveness and trust building, particularly in investment, the urban vision and visual perceptions decisions. Nigerian cities are chaotic and needed better identities, Fig. 9(a), Fig.11, Fig.15(b), Fig.16, and Fig.17, show artistic illustrations and insights of the desired results. Encourage and promote innovative use of design principles to control visual designs and users' behaviour with clear values and hierarchy to define and promote the premium status of active transit systems in today's city planning and design, particularly in low-income neighbourhood and renewals engagements. E.g. organising competitions in schools and built-up professionals. practices.

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