

Growing bicycling momentum for African Cities: Is it a thing of infrastructure or behavioural change

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Bicycling is generating traction in the growing facts of the necessity to reduce carbon while providing active societies for individuals. Bicycles are among the most available Non-Motorised Transport (NMTs) in the world owing to the flexibility in traffic, cost of maintenance, convenience for short-distance travels, environmental sustainability, and positive physical and mental health benefits for bicyclists. However, the drawbacks of bicycling have not gone unnoticed as it is one of the most dangerous forms of transportation because of reckless or aggressive driver actions that could endanger bicyclists' safety. Secondly, traffic with buses and trucks increases the risk of collision for bicyclists. In context, riding a bicycle in metropolitan areas might shorten a cyclist's life expectancy and result in 0.13 fatalities yearly¹. Third, the direct exposure of cyclists to air pollution and diesel emissions may negatively influence bicyclists' health. Although the benefits surpass the detriments, they do not get attention regarding global transport modal shares due to the mentioned barriers.

Several countries are dealing with the barriers pleasingly, especially the champion bicycle-friendly cities such as Netherland, Sweden and Denmark. The top ten cities out of 648 cities with increased modal share are: Groningen (55%), Greifswald (44%), Lund (43%), Amsterdam and Assen (40%), Munster (40%), Copenhagen (37%), Leiden and Utrecht (33%), Vasteras (33%)². Five of the ten are in the Netherlands, two in Sweden and Germany, with Denmark having one. Moreover, no African city made it to the list, and we can speculate on why no African city made the list. Could it be a result of no vision or interest or poor cycling policies by the transportation ministries of the various African cities? Alternatively, could it be that the absence of poor construction, miniature width and pattern of consistency in existing cycle lanes blemishes the use of bicycling? Alternatively, could it be the deepened social status differences, identifying bicycles with the urban poor, immigrants and youths who use them out of need? The Netherlands successfully maintains a good modal share due to investment in research, infrastructure, and

¹ Rojas-Rueda, D., de Nazelle, A. Tainio, M. & Nieuwenhuijsen, M. (2011). The health risks and benefits of cycling in urban environments compared with car use: health impact assessment study. *BMJ*, 343. <https://doi.org/10.1136/bmj.d4521>

² CityClock (2021, May 27). Cycling mode share data for 700 cities in 40 countries. [Cycling Mode Share Data for 700 Cities in 40 Countries \(cityclock.org\)](https://cityclock.org)

a cycling culture that has become a consistent practice. On the contrary, inadequate infrastructure, car-oriented cities, safety, and no cycling culture typifies African cities³.

Growing the momentum

The most important aspect is to create an enabling environment from policy standpoints to outline cities vision and priority for bicycling. It should be followed with a strategic advertisement of cycling as a social necessity, with no bias toward its usage among socio-economic classes. It will remove barriers, especially socio-economic and gender blindness, in bicycle usage, even in the rural areas where people frown at women for riding bicycles⁴

Several hypotheses abound concerning infrastructure as vital for momentum building. One of them is that building cycling infrastructure encourages people to start using bicycles for transport. Such an optimistic assumption can effectively increase cycling modal share, but it needs testing. Likewise, many also argue that the critical issue is behavioural change, as bicycling tilts more to individual decisions. In contrast, other scholars assume the solution to be two-fold (combining infrastructure and behaviour). It signals the need for African cities to fund bicycle research to investigate factors to increase momentum while providing a business case for investment.

With research on bicycling, cities can break down the desired behaviour that encourages people to start riding into various sub-behaviours. These include locating cycle routes people are safe and comfortable with, preference for specific bicycle infrastructure, and attitudes towards accepting such infrastructure. It may then help us understand better the hurdles and advantages that individuals perceive for each sub-behaviour and the proper steps to execute the actions to address each of them. Bicycling experts assert that "when individuals experience what riding a bicycle is like (rather than what they think it is), the behaviour can change owing to an excellent bicycling experience. Hence, a multi-disciplinary approach that integrates behaviour (personal) with ground support (bicycle infrastructure preferences) could remove perceived and actual barriers, leading to increased and sustained bicycling momentum for people.

³ Felix, R., Moura, F., & Clifton, K. (2017). Typologies of Urban Cyclists: Review of Market Segmentation Methods for Planning Practice. *Transportation Research Record*, 2662(1), 125-133. <https://doi.org/10.3141/2662-14>

⁴ Acheampong, R. & Siiba, A. (2018). Examining the determinants of utility bicycling using a socio-ecological framework: an exploratory study of the Tamale Metropolis in Northern Ghana. *J.Trans. Geogr.*, 69, 1-10.