

PhD project by Dorcas Nthoki Nyamai

## Inclusive mobility and spatial justice: Prospects of non-motorized transport in Nairobi

The research investigates the linkage between justice and urban mobility in Nairobi, focussing specifically on sustainable mobility, particularly non-motorized modes. Planning for sustainable mobility within the framework of spatial justice takes into account various approaches. This is based on the understanding that space not only contains resources that can be distributed but also consists of individuals engaging in activities that require movement within that space. These actions continuously shape the space and people's perceptions of justice play a crucial role in understanding how spatial justice related to mobility is constructed.

The research seeks to address how sustainable mobility in African cities can be advanced while mitigating the risks and misfortunes associated with non-motorized modes, especially for vulnerable populations. The study highlights the neglect of non-motorized mobility which is predominantly used by the majority of people in Nairobi. This neglect results in instances of injustice. By employing a three-dimensional framework – spatial, individual, and modal dimensions – the research investigates mobility in relation to justice by analysing the city's spatial layout, the modes of mobility and the demographic characteristics. Viewed from this perspective, the organization of space and the prioritization of the mobility needs of the most vulnerable present a notable way in which spatial justice unfolds and can be understood.

Considering intermodal connectivity, the research also explores the spatial inequalities in the layout of public transit infrastructure and the challenges that vulnerable groups encounter and are exposed to while using this mode of mobility. By tracing the historical development of non-motorized mobility, specifically walking, in Nairobi, the research points to the prevalence of walking despite the ongoing emphasis on motorized infrastructure. The balance tilts too far in the direction of motorized mobility, restricting and even attempting to replace walking as a valid mode of mobility. This results in injustices such as an increased risk of pedestrian fatalities compared to other commuters.

In examining the relationship between mobility and justice, the research aims to move beyond resource distribution – whether infrastructural or financial – as the sole measure of assessing injustices in the mobility system. Instead, it focusses on the disproportionate share of risks and misfortunes in the urban mobility system, which exacerbate and perpetuate injustices for some groups more than others. To contribute to the advancement of epistemic justice, the research also attempts to understand the concept of justice in urban mobility through the lived experiences of urban commuters. By considering the diverse perspectives on justice among urban commuters, a deeper understanding of the unique needs and experiences of different groups can be gained. This knowledge can inform the development of comprehensive and inclusive approaches to mitigate injustices associated with the use of sustainable modes of mobility.