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# Sustainable Pedestrian Safety Options for Low- and Middle-Income Countries

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# Background

- Mobility of people and goods is an essential part of all social and economic activities
- In Africa, walking remains a dominant mode of transport in both urban and rural areas
- To date, there appears to be limited attention to the safety of walking as a mode of transport with an emphasis on sustainable solutions
- This research aims at improving pedestrian safety through ;
  1. Assessing **existing conditions** of road infrastructure,
  2. Identifying **barriers** to safe walking
  3. Analysing the **future potential** of safe walking within the study area.



**Pedestrians crossing at ungazetted areas/ points**

**Encroached / blocked Zebra Crossing**

## Problem and Needs

- 1.35 million global fatalities annually (WHO, 2018)
- 23% concern pedestrian
- 90% are from developing countries
- Countermeasures imported from developed countries are failing to work in developing countries
- Insights into countermeasures for developing countries are lacking (Heydari *et al.*, 2019)



# Innovation and Challenges

- A systematic review was done with the aim of identifying effective infrastructure countermeasures using the following guiding questions
  1. What are the **factors affecting the effectiveness** of countermeasures?
  2. What **appropriate countermeasures** can improve pedestrian safety in developing countries?



# Preliminary Outputs

- **Factors influencing effectiveness**

1. Design consideration
2. Spatial layout & coverage
3. Sustained maintenance
4. User behaviour/compliance
5. + non-infrastructure measures



Source: <https://www.entebbeairportexpress.com/wp-content/uploads/2020/05/Gulu-town-850x430.jpg> accessed on September 15th, 2023

- **Appropriate countermeasures**

1. Rumble strips (Rural areas) **-25% crash frequency**
2. Speed tables (Urban areas) **+30% driver compliance**

- **No sufficient evidence exists on appropriate countermeasures for developing countries**

- Countermeasures can only be effective if combined with road safety education, enhanced police enforcement, legislative changes, and social marketing campaigns
- A **harm reduction approach** (UN, 2022) and **theory of change pathway** (WHO, 2023) should be considered in the design of appropriate countermeasures.



# Impact

- Policy
- Enhanced decision-making by policymakers
- Development of evidence-based strategies for pedestrians with a focus on developing countries





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# THANK YOU

Sustainable Pedestrian Safety Options for  
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