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.

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

- **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.

Source: https://www.entrepriseairportexpress.com/wp-content/uploads/2020/05/Gulum-town-850x430.jpg accessed on September 15th, 2023
Impact

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