

# Inclusive urban mobility and road safety in developing countries<sup>1</sup>

HI aspires to a world of solidarity and inclusion, enriched by our differences, where everyone can live in dignity, including persons with disabilities and the most vulnerable.

Current global trends suggest that by 2050, cities will be home to two third of humanity<sup>(2)</sup>, including 15% of persons with disabilities. Places of prosperity and opportunity throughout history, rapidly growing cities now concentrate and exacerbate overwhelming challenges in terms of poverty, inequalities, safety and pollution. These factors engender additional exclusion of the most marginalised and vulnerable members of communities, including persons with disabilities; all the more in developing countries.

Considering these global trends, we believe that the global commitment to leave no one behind cannot be achieved without empowering and mobilising all development actors, from local to international level, to address inclusion and safety issues in the urban context.

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1. The study was implemented by HI with the support of Andreas Beavor, Urban Emerge, Federico Batista Poitier and Dr. Victor Pineda, World Enabled. The editorial committee consisted of HI representatives, along with Jean-François Gaillet and Julie Delzenne, Institut VIAS, and Abner Manlapaz, Life Haven Center for Independent Living. The conclusions are based on literature review, lessons learnt from programmes of HI, CBM and Light for the World, as well as focus groups with persons with disabilities and their representative organisations, in several countries (Burkina Faso, Cambodia, Democratic Republic of Congo, Haiti, Kenya, Laos, Nepal, Senegal and Vietnam).

2. UNDESA (2014) World Urbanization Prospects.

**Through appropriate measures to improve safety and accessibility, cities in developing countries have the transformative potential and the leverage to reduce inequalities in society and contribute to the realisation of human rights for all.** This can make a significant difference in the well-being of the most vulnerable, including persons with disabilities.

## Why is it important?

Roads belong to everyone. Everyone needs to use the roads on a daily basis to reach their destination and live their lives. Yet, this simple action can represent a major life threat for many members of the communities.

**Road safety is an increasingly urgent development challenge with appalling human, social and economic costs. Between 20 to 50 million people worldwide suffer non-fatal injuries in road crashes every year; around 1.25 million are killed.** This is the number one cause of preventable death for youth aged 15 to 29 years, and, the second cause for those aged 5 to 14 years.<sup>(3)</sup> Over 90% of the deaths occur in developing countries.<sup>(4)</sup> The economic cost of road

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3. WHO (2015) Ten Strategies for Keeping Children Safe on the Road. Produced as Part of the Decade of Action for Road Safety 2011–2020. Website: [www.who.int/roadsafety/decade\\_of\\_action](http://www.who.int/roadsafety/decade_of_action)

4. In Low and Middle Income countries, road crashes are the second leading cause of death (WHO).

traffic crashes is also extremely high, estimated by the WHO at US\$ 518 billion worldwide, and up to 5 percent of GDP in many developing countries. Indeed, road crashes cuts in the productive workforce and add an enormous burden to already under-resourced health and social protection systems in developing countries. Member States of the United Nations have highlighted this major concern by the proclamation of the 2011 Decade of Action for Road Safety and by adopting a standalone target in the Agenda 2030 on Sustainable Development to reduce the number of road traffic deaths and injuries by half by 2020 (Sustainable Development Goal Target 3.6).<sup>(5)</sup>

Moreover, road safety challenges further contribute to congestion of cities and health hazards tied to poor air quality and lack of exercise, namely due to the significant increase in private car and motorbike use over the past decade in most developing countries. The situation is particularly critical in cities, which will host the majority of the world's population by 2050.<sup>(6)</sup>

**Unsafe roads also represent a major factor of social exclusion, especially for 'vulnerable road users'. These include notably pedestrians, persons with disabilities, cyclists and children. They represent 46% of road casualties. Persons with disabilities are at higher risk of sustaining injuries from road crashes<sup>(7)</sup>. They comprise approximately 15% of the world's population (85% of those living in developing countries),<sup>(8)</sup> with differing needs across a wide spectrum of impairments, including physical, visual or hearing impairments and cognitive impairments. They experience many social, physical and institutional barriers towards their safe mobility, hampering their access to education, employment, infrastructure and services.**

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5. SDG 3: *Ensure healthy lives and promote wellbeing for all at all ages: 3.6* By 2020, halve the number of global deaths and injuries from road traffic accidents.

6. CBM and World Enabled (2016) *The Inclusion Imperative: Towards Disability-inclusive and Accessible Urban Development*.

7. WHO (2011) *World Report on Disability* "People with disabilities are at higher risk of nonfatal unintentional injury from road traffic crashes".

8. *Ibid.*

When persons with disabilities are unable to access these services, this is an **infringement of their basic human rights** and a failure of government to deliver a fair society with equal access to opportunities for all. Indeed, at the core of the Convention on the Rights of Persons with Disabilities (CRPD), Article 9 requires countries to identify and eliminate obstacles and barriers and ensure that persons with disabilities can access their environment, transportation, public facilities and services, as well as information and communications technologies. The UN Decade of Action for Road Safety (2011 to 2020) also stresses the importance of accessibility when it calls for action in urban planning to address the accessibility needs of all users with consideration to their geographic and demographic context.

**When interpreting this requirement, it is crucial to link accessibility and safety in order to improve safe mobility<sup>(9)</sup> for all in the city.** Without road safety for all, cities are not inclusive and accessible. Through SDG Target 11.2, all countries committed to provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

While improving road safety and enabling accessibility alone will not break down all disability barriers to employment, it is a central factor that can have a domino effect **towards enhancing an inclusive, peaceful and prosperous society that leaves no-one behind.** Indeed, safe mobility enables that, from an earlier age, all components of our diverse societies, including persons with disabilities to interact in ordinary life activities in the public sphere, such as schools, transports, work. This is extremely beneficial in reducing discriminations and reinforcing social cohesion.

Clearly, the resources needed to make urban environments safe and inclusive for everyone

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9. *Humanity & Inclusion* defines "safe mobility" as the ability for a person to safely and reliably access preferred destination by navigating an environment considerate of his or her needs and preferences.

are relatively modest compared to the enormous cost in lost lives, road traffic injuries and their consequences, and to the cost of children and youth being excluded from life opportunities.

**All stakeholders involved in the SDG implementation, especially States and local authorities, must not fail to address the needs of persons with disabilities to enjoy their right to the city, via safe and accessible mobility.**

Action now to improve safe and inclusive urban mobility will ensure that inequalities and discriminations do not become further locked into poor urban design and inaccessible transport systems. A key solution lies in inclusive urban planning, i.e. to plan the city development with respect to the diversity of its inhabitants, including the needs of those with disabilities to fully participate in city life.

## What are the urban mobility and road safety challenges?

« Nothing is done for our mobility, government builds roads like we do not exist. We are invisible to them. »

*Representative of a Disabled Persons' Organisation from Kenya.*

For persons with disabilities and other vulnerable road users, the difficulties of travelling around urban areas in developing countries are often overwhelming. Sidewalks are either non-existent or in poor condition.

There are very **few safe crossing points** over roads and where they have been installed, they are often blocked by raised kerbs, they are rarely traffic light controlled and the majority of vehicles do not stop for pedestrians unless they really have to, leading to many casualties.

**Signage and information** to help pedestrians, including those with disabilities, to get around cities is also lacking. Pedestrians without disabilities find these urban environments a challenge and these factors make walking or using a wheelchair beside and across roads extremely difficult for those with physical disabilities. For those with visual impairments, walking along trusted routes with the aid of tactile paving or audible crossing points is not an option in many cities.

**Collective transport** is often the primary mode of transportation in low and middle income countries, especially for the poorest who cannot afford private transport means. However, formal public transport is often under-developed in developing countries, and co-exists with abundant informal collective transport systems, with both cases often provides further challenges. In Cambodia, a Journey Access Tool<sup>(10)</sup> was designed to identify barriers for persons with disabilities in accessing the formal bus system in Phnom Penh city. In collaboration with local Disabled Persons Organisations (DPOs), and persons living with different type of disabilities (including persons on wheelchairs and those with visual impairments), assessments were made of accessibility and safety challenges between the point of origin and the transport stop, during the journey on the bus and then between the point of disembarking the bus to the final destination. As in many cities in developing countries, they found that persons with disabilities usually struggle to get onto buses, particularly with wheelchairs. They would often have to be carried by friends or fellow passengers and where on-board spaces for wheels chairs or those with other impairments are provided, public awareness and understanding is often a barrier to their proper use. Those who need to remain in their wheelchairs during bus rides are also exposed to high risks.

The difficulty of getting onto a bus often forces those with disabilities to travel outside of peak hours, leading to being late for work. This also

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10. The Journey Access Tool was designed by Queensland University of Technology, with the support of HI, to identify the barriers for people with disabilities in accessing the bus system in Cambodia.



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makes them more vulnerable to **crime, abuses and sexual harassment**, especially girls and women with disabilities. Even if it is possible to travel on public transport, those in wheelchairs or with visual impairments face a difficult journey along rough paths and roads to where they need to go. These challenging experiences often turn persons with disabilities away from public transport, further constraining them and their opportunities for education, employment and engagement in public life.

**Road design and layout, poor road markings or signposts and the lack of street lighting** are all causes of unsafe driving and hazards to those with disabilities, as well as other pedestrians. The concept of a Safe Systems Approach remains largely unknown. This approach involves three interactive elements: improving the attitudes and behaviour of road users, designing and constructing road environments to reduce crash risks, encouraging manufacturers to produce and consumers to buy safer vehicles. It emphasises that those involved in the design of

the road transport system need to accept and share responsibility for the safety of the system, and those who use the system need to accept responsibility for complying with the rules and constraints of the system.<sup>(11)</sup>

## Insights from countries

### Engaging government and DPOs to improve safe and inclusive mobility in Burkina Faso

Ouagadougou, the capital city of Burkina Faso, is experiencing extremely high urban growth of over 7% a year; one of the highest urban growth rates in the world.<sup>(12)</sup> This has led to rather

11. Cable, R. (2013) *Challenges for Planning Safe Cities for Vulnerable Road Users: Cape Town Freeway Management System Experiences*. Presentation at the GRSP Africa Road Safety Seminar – Moving People Safely in Cities, Addis Ababa, Ethiopia.

12. World Economic Forum (2016) <https://www.weforum.org/>

chaotic development and a situation where infrastructure and transport fail to keep up with demand. As such, the city suffers from the urban mobility and road safety challenges described above. At the same time, awareness of disability rights has been improving in the country. The CRPD was ratified in 2009 and a National Strategy for the Protection and Promotion of those with Disabilities was launched in 2012. There is now a solid basis of government legislation and policy on inclusive access and mobility, but as in many countries, transforming policy into action remains a challenge. Government officials acknowledge that there is a lack of awareness and no clear strategy for practical improvements in road safety and urban mobility, let alone for responding to the needs of persons with disabilities.

Engaging with the government and various Disabled People's Organisations, a road safety project run by HI and partner organisations has helped create a framework for evaluating progress in Burkina Faso against the African Plan of Action for Road Safety 2011-2020, as well as for a national Plan of Action on Road Safety from 2018 to 2022. As part of a broader regional EU-funded road safety programme called 'Safer Africa',<sup>(13)</sup> HI project has contributed to research, data collection and policy recommendations on the road safety situation in Burkina Faso and in regional forums.

Overall, **this work has helped create government awareness and initiatives in road safety and inclusive urban mobility, with the Ministry of Transport now actively trying to incorporate more inclusive measures, including accessible road crossings, some traffic calming measures and ramps and priority seats on some public buses.** Frequently raising the profile of safe and inclusive urban mobility issues is bearing fruit, but in Ouagadougou, there is still a very long way to go to ensure universal accessibility.

## **Data, road safety and urban mobility in Vientiane, Laos**

Previously in Laos, road safety activities were carried out by various government departments without a focal point or coordinated approach, leading to much wasted effort. The creation of the National Road Safety Committee (NRSC) chaired by the Ministry of Public Works and Transport has provided a more structured and collaborative approach to implementing road safety measures, **which has resulted in more integrated and robust infrastructure and better promotion of road safety awareness and interventions.**

As part of a road safety programme carried out by HI in Laos from 2008 to 2016, different DPOs and the Laos Disabled People's Association (LDPA) have been supported in feeding in consultation processes relating to developing urban infrastructure and other projects, such as setting up a Bus Rapid Transit system. The LDPA has also created several initiatives to help with universal mobility. For example, in Vientiane, tuk-tuk drivers have been trained on accessibility. After the training, they can proudly advertise their proficiency with a sticker on their vehicle, thus adding to their business opportunities.

The programme produced a **detailed guide on how to improve road safety and accessible public transport in cities in Laos.** This was aimed at government departments and private sector planning and engineering consultancies. Along with the capacity building of these stakeholders, the creation of the Road Crash Prevention Team brought together a group of road crash victims to speak to school pupils and other groups in order to raise road safety awareness for inhabitants of Vientiane and other communities across the country.

It is important to note that even though road safety and public transport are inadequate, encouraging additional mobility services such as private and accessible taxis can have a very significant positive impact on the safe mobility of those with disabilities. In Vientiane there is currently a pilot taxi service for those with disabilities, run by the LDPA. Thanks to a Korean

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[agenda/2016/05/africa-biggest-cities-fragility/](https://agenda/2016/05/africa-biggest-cities-fragility/)

13. Website: <http://saferafrika.eu/>

donor, these are made very affordable and allow a caregiver or family member to accompany the person for free.

## Recommendations for improvements in policies and actions

### 1. Strengthening the policy and financial framework for safe and inclusive mobility action, based on evidence and through participative processes.

- **Place people at the centre of city development strategies** with a focus on improving the safety, accessibility, and sustainability of mobility infrastructures to guarantee the enjoyment of the city for everyone and foster greater inclusion and participation in all spheres of society.

- Urgently **step up efforts and investments** to implement concrete actions aligned with the five pillars of the Global Plan for the Decade of Action for Road Safety,<sup>(14)</sup> involving the different stakeholders, including road traffic victims associations and Disabled People Organisations.

- Acknowledging the fact that the objective to reduce by half global road traffic fatalities by 2020 will not be achieved, make it a priority to increase efforts and **extend the deadline of the SDG road traffic injury target 3.6 to 2030**, in line with most of other SDG targets and the WHO 2030 Voluntary Road Safety Targets.

- **Support actions for road safety and accessibility implemented by Civil Society Organisations**, including road traffic victims associations, NGOs and Disabled People Organisations, recognising them as key actors for change and ensuring their access to funding mechanisms such as the new UN Global Road Safety Trust Fund.

- Promote an **integrated approach to safe and inclusive mobility** that considers road safety and accessibility as mutually reinforcing elements and essential components of a broader strategy to ensure equal opportunities and achieve

sustainable, inclusive development.

- Ensure that the **inclusion of persons with disabilities** is a systematic, cross-cutting objective in all policy frameworks and international cooperation strategies relating to urban planning, road safety and mobility. **Systematically both mainstream disability and integrate specific measures targeting persons with disabilities and other vulnerable road users**, namely by adopting a rights-based approach to disability, that moves beyond considering persons with disabilities solely as victims of road fatalities, to take into account the diverse range of needs of persons with disabilities and the importance of safe mobility towards enhanced participation in society.

- Use a **gender lens**, and pay special attention to the specific and diverse mobility needs of women and girls, including women and girls with disabilities, emphasising the importance of safe and inclusive mobility towards equal participation of women and girls in society.

- **Facilitate the participation of all groups** represented in the city, including persons with disabilities, their representative organisations, in the design, implementation and monitoring of local and national policies and projects on urban mobility, in line with article 33 of the CRPD. Participatory planning is the only way to achieve universal mobility at the city scale. The earlier the consultation can start the better; DPOs should also be invited to test the finished product and help to improve the user experience.

- In order to develop evidence-based policies to improve urban mobility for vulnerable road users, **strengthen data collection methods** at local and national levels, including road crash data records.<sup>(15)</sup> Data must be disaggregated by age, disability, gender, income and geography. Use the framework of the Washington Group Short Set of Questions to adequately understand the diversity of disability in communities in developing countries.

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14. In relation to improving road safety management, safety of road infrastructures, transports and vehicles, as well as improving road users' behavior and post-crash care.

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15. The Road Crash and Victim Information System (RCVIS) enables the distribution of road crash and casualty reports to all local and international stakeholders involved or with an interest in road safety issues. See: <https://www.handicap-international-road-safety.org/en/sections-3-intervention-methods-and-operational-tools/pillar-1-road-safety-management-increasing>



© Tim Dirven - Panos / HI. Road safety awareness campaign in Laos.

**Support research and the production of evidence in general on barriers** to and the cost/gains of accessibility, safety, inclusion, with a focus on girls, boys, women and men with disabilities, and the effects that mobility and transportation infrastructure have on the access of marginalised groups to services, and other opportunities, like employment.

- Effectively **monitor and report on the impact of national and local policies** relating to safe and inclusive mobility. Utilise the **targets and indicators on mobility** set out in Sustainable Development Goals, the New Urban Agenda, and the UN Decade on Road Safety through the lens of the Convention of the Rights of Persons with Disabilities, to create synergies between the different reporting processes and to ensure contextualised policies and implementation strategies that guarantee safe and inclusive mobility for all, including persons with disabilities.

- **Engage in multi-stakeholders dialogue** and share knowledge and experiences on safe

and inclusive urban mobility at all levels, and **bring these issues further up on the global agenda**, in different policy sectors, and as part of international cooperation strategies.

## 2. Removing the barriers to safe and accessible mobility, focusing on:

### 2.1 – The built environment

- Promote a safe and accessible urban environment based on **Universal Design Principles**, providing accessible features for a wide range of impairments,<sup>(16)</sup> which represent cost-effective<sup>(17)</sup> and efficient measures to enhance rapidly safety and inclusion.

16. See for example:

- CBM and World Enabled (2016) *The Inclusion Imperative: Towards Disability-inclusive and Accessible Urban Development*;
- HI(2016) *Policy Paper: Road Safety*

17. When planned into new developments or infrastructure projects, a safe and accessible environment can be included from the start at very little additional cost.

- Ensure that **public procurement** include mandatory standards on both safety and accessibility for any projects relating to mobility infrastructure or technology, including for international cooperation infrastructure projects, and ensure ex-ante and ex-post assessments of both safety and accessibility for these projects.
- In consultation with a wide range of stakeholders, including with DPOs, develop the use of traffic-calming measures such as speed bumps, and ensure respect and enforcement through public awareness campaigns and strengthened capacity of traffic police.

## 2.2 – Transport and vehicles

- Plan for **multimodal transportation system** to allow people to choose from a variety of transportation modes. Multimodal transportation system increases the safe mobility of those who are unable to drive (e.g. children, persons with disabilities, older people). This generates also health benefits by encouraging walking and cycling and reducing pollution.
- Among the transportation mix in cities, promote in priority **affordable, safe, accessible and reliable formal public transport** that meet the diverse range of needs required by persons with disabilities, including women and girls with disabilities.
- In order to **increase the offer of accessible transport services**, organise **trainings and information sharing** for all public, private, formal, informal transport operators on how to cater for the needs of passengers with disabilities, including those with less visible impairments; and put in place of a system of accreditation based on vehicle specifications and driver training.

- Encourage the **development of ICT solutions** to accessibility challenges, such as disabled passengers being able to send pick-up requests to informal bus operators via SMS or an app, in the context where there are no designated bus stops.
- **Reduce import duties for imported accessible vehicles** as well as mobility equipment and assistive devices.
- Encourage the independence of people with disabilities, through the permission of accredited modified vehicles and a system for taking a driving test and proving sufficient ability, in order to get a driving licence; and make it mandatory for all infrastructure and buildings to reserve parking spaces for those with disabilities, close to safe access.

## 2.3. People

- Promote **road safety awareness campaigns** for all road users, and a special focus on vulnerable road users, including persons with disabilities, children, pedestrians, etc.
- With the view **to increase the demand for safe and inclusive mobility**, promote disability rights awareness campaigns and capacity building programmes for road traffic victims associations, DPOs and other vulnerable road users groups.
- Provide **training on road safety and universal accessibility** for government staff, urban planners, engineers, public transport operators, traffic police, school teachers or business associations.
- Develop **university curricula** in urban planning and design that include training on road safety and disability inclusion principles, especially Universal Design concepts.

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