



COVID-19 RESPONSE & RECOVERY RESEARCH

An Evidence Base for a Resilient Future | December 2021

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The High Volume Transport Applied Research Programme (HVT), funded by UK Aid, undertakes research into sustainable transport development in LICs across Africa and South Asia.

ACKNOWLEDGEMENTS

For all those who lost their lives to COVID-19 and the millions who have been affected by the devastating impact of the pandemic. Through research and learning we will emerge and thrive.

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INTRODUCTION

By the time the World Health Organisation declared pandemic status for COVID-19 on 11th March 2020 we were already seeing chaos in the transport systems within low-income countries (LICs).

India's transport system effectively collapsed as huge numbers of migrant workers rushed to return to their home villages. Informal transport operators in South Africa used insecticides as disinfectants. Elsewhere ill-informed transport operators continued to overcrowd public transport buses and trains.

We at High Volume Transport (HVT) knew that transportation could have a key role to play in the mitigation of the spread of COVID-19, and in keeping low-income economies moving during the pandemic. But there was limited evidence base on what works, which was leading to general misinformation. We also recognised that many transport institutions in these nations had limited capacity and resources for dealing with COVID-19 hygiene measures and operational matters.

We set out urgently to gather and disseminate critical information. We gathered evidence on what appeared to work and what didn't and on what the Chinese authorities in Hubei Province did in response to the pandemic. And, we published "A Call for Action on COVID-19" for the transport community.

We launched an innovation research programme which received 200 expressions of interest. We awarded 20 research projects from a field of 45 proposals which formed the portfolio of the 'COVID-19 Response and Recovery Transport Research'.

The research concluded that **there is an urgent need to develop transport systems that make transport less fragile and more resilient to future pandemics.**

Some of the key takeaways from the research included:

- The restriction of transport services during the pandemic led to losses in livelihoods, transport businesses, taxes and toll revenues. It also caused delays in freight services and a myriad of other disruptions with severe consequences for economies and people's health and wellbeing.
- Many public transport operators and governments in LICs/ lower-middle income countries (LMICs) (unlike those in high-income countries (HICs)/ middle-income countries (MICs) did not institute all emergency regulations. Oftentimes, this left them-exposed to financial risks resulting from legal action by people exposed to COVID-19 in the transport systems.
- Pre-pandemic inequalities related to gender and disabilities widened as a result of COVID-19. Over 85% of women work in the informal sector in LICs. These women were more likely to have lost their sources of income and suffer domestic violence and take on more domestic work during the pandemic.
- Dramatic localised improvements in air quality occurred virtually everywhere where traffic levels dropped as a result of lockdown. Modelling of the links between air quality, transport and COVID-19 in Bangladesh showed that local weather patterns and policy caused great variations in air quality. This can have immediate impact on air pollution and reduce the over 4.6m people that die every year due to poor air quality.
- The research confirmed that there was a direct correlation between increased mobility and increase in spread of diseases thus validating the policy measures that restricted mobility.

- It was observed in HICs that due to lockdown there was a reduction in the number of road accidents, but the number of fatalities increased. This was also observed in LICs. However, the situation was more complex in rural areas in LICs where in some cases both levels of accidents and fatalities increased following the institution of lockdowns.
- In some South Asian countries such as Afghanistan, Bangladesh, Pakistan and Nepal, public transport restrictions were less comprehensive than India which suspended all modes of transport except for transport for essential goods and health workers. In southern and East Africa, cross-border restrictions led to freight disruptions and shortage of essential goods. In West Africa many hand-to-mouth transport workers protested against lockdown despite cash-strapped governments distributing limited 'palliatives' in the form of food and essential supplies.
- In Nigeria, the pandemic became a force for innovation and change amongst transport workers who developed new businesses, increased the use of IT technology, and improved sanitation systems and enforcement at transport hubs.
- People in seven African countries felt strongly that, despite the inconvenience of social distancing and capacity restrictions, daily commute and travel was generally more comfortable and safer due to fewer passengers. They suggested that this, alongside other measures that promote safety and reliability, could be made more permanent.
- Through research in Cape Town, Uganda and Nairobi, we learnt much about active transport. This included what is required to improve

walking and cycling policy but also on the important role Tactical Transit Lanes can play in rapidly growing LIC cities.

The pandemic is still with us and in many LIC countries there is concern about the new waves of infection and mutations of the virus. It is important that the transport sector continues to innovate and piece together the evidence for ongoing response and eventual recovery.

It is our hope that this body of evidence will now lead to more research and recommendations to re-build better as we continue to emerge from the devastating impact of COVID-19.



Dr Bernard Obika
*Team Leader,
High Volume Transport Programme*



RESEARCH EXCHANGE

Building a future based on evidence

The Global Transport Knowledge Portal (gTKP)

STUDY COUNTRIES: ALL LOW- AND MIDDLE-INCOME COUNTRIES	FUTURE TARGET COUNTRIES: ALL LOW- AND MIDDLE-INCOME COUNTRIES
RESEARCH SUPPLIER: INTERNATIONAL ROAD FEDERATION (IRF)	AUTHORS: SUSANNA ZAMMATARO, JULIA FUNK, MÉLINE HUYNH, SARA SEGHAVER, CHRISTOPHER HITZ IN COLLABORATION WITH SLOCAT PARTNERSHIP ON SUSTAINABLE LOW CARBON TRANSPORT

OBJECTIVES AND SUMMARY

COVID-19 has highlighted the need for practical knowledge to support policymakers, public agencies and practitioners to mitigate the impacts of the pandemic on the transport sector. There has been intense demand by practitioners and policy makers from LICs for a source of information that is comprehensive, authoritative and up to date with current practice.

Where do we go for the correct information? The [Global Transport Knowledge Portal](#) (gTKP) has been upgraded to provide fast-track, easy access for low- and middle-income countries (LMICs) to up-to-date learning resources and good practices on COVID-19 impacts and responses.

The Global Transport Knowledge “Partnership” (gTKP) was originally set up by the UK Government’s Foreign, Commonwealth & Development Office (FCDO, formerly DFID). Managed by the [International Road Federation](#) (IRF) since 2009, it has provided access to knowledge and expertise around nine key transport areas through a [dedicated web portal](#).

Since 2017, the portal also hosts knowledge resources produced by the [United Nations Road Safety Collaboration](#) (UNRSC). With the addition of a new section on Covid-19 and transport , gTKP provides a unique one-stop-shop for hands-on knowledge and expertise.

KEY FEATURES OF THE PLATFORM

The COVID-19 resources on the gTKP represent authoritative, peer-reviewed compendium of quality research outputs from well-established organisations. They focus on knowledge useful to LMICs. The gTKP knowledge centre functions like a free on-line library as well as a gateway to other relevant knowledge repositories and resources. The COVID-19 hub is organized around three main sections: [COVID-19 Impacts](#), [COVID-19 Responses](#), [COVID-19 Recovery Pathways](#).

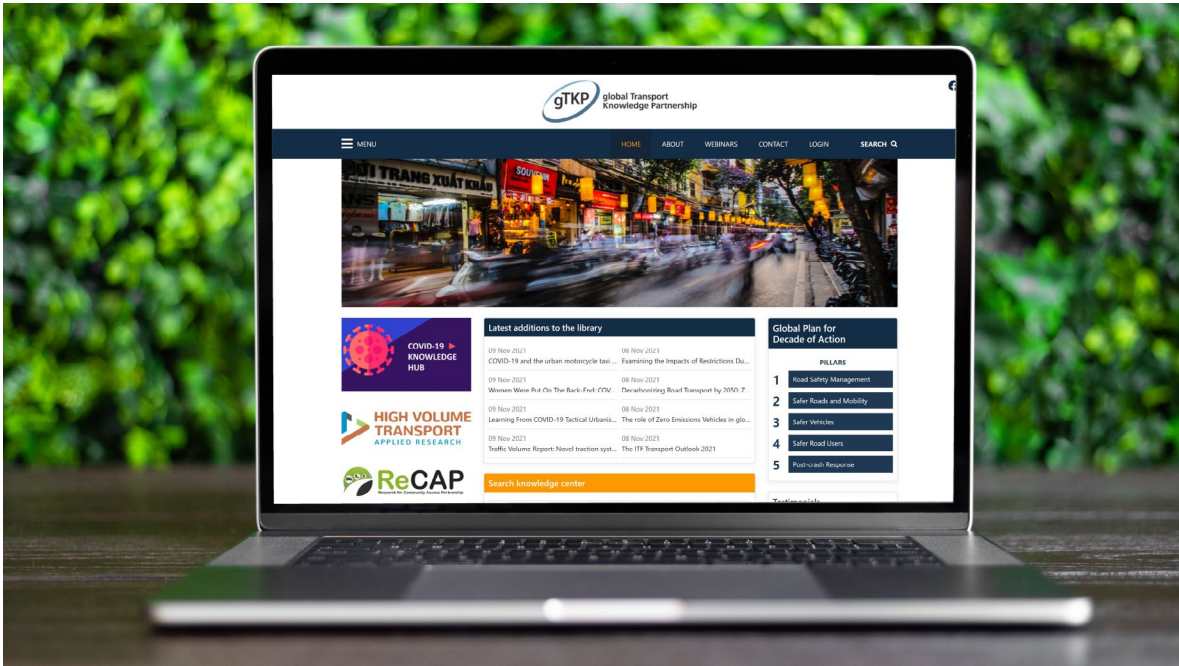
Specific sub-sections provide entry points by mode of transport (e.g. [aviation](#), [cycling](#), [maritime](#), [rail](#), [road](#), [walking](#)). Alternatively, information is provided by type of transport (e.g. [freight](#), or [passenger transport](#), or further broken down into [informal transport](#) and [public transport](#).

Specific information can further be obtained for the response by [rural mobility](#) and [urban mobility](#). Similarly, the [COVID-19 Recovery section](#) includes sub-sections outlining various topics from [Avoid-Shift-Improve](#), to [Planning Resilient Transport](#), [Public-Private Partnerships](#) as well as [Regulatory and Fiscal measures](#).

The section on [COVID-19 Transport Data](#) addresses how the pandemic has evolved in quantitative terms. Specific sections are further dedicated to the impact COVID-19 has had on [transport workers](#), and [COVID-19 and Women, Children, the Elderly and People with Disabilities](#).

Beside these knowledge pages, the gTKP library hosts more than 240 knowledge resources specifically related to COVID-19– all searchable through the search engine. Further links and resources are also provided on each individual knowledge page. Further knowledge resources will be added over time to keep the research hub up to date with the latest information.

Users and other organisations are actively encouraged to contribute their own knowledge and experience in the form of new reports, articles, case studies, research papers and other peer reviewed publications. Submissions may be made in any language. The gTKP portal was launched on 4th March 2021. Events and webinars delving into some of the key issues that the COVID-19 pandemic has generated or exacerbated can also be accessed via the portal. Consult [www.gtkp.com](#).





GENDER

Striving for gender inclusive transport

GENDER INEQUALITIES AND THE IMPACT OF THE COVID-19 PANDEMIC ON MOBILITY

The COVID-19 pandemic has shone a spotlight on existing inequalities across the transport sector in many parts of the world, especially in LICs.

The importance of everyday mobility for household survival, not just the journey to work, has become a key feature. The important role that women and girl's mobility plays in maintaining households in terms of access to food and access to healthcare supplies and its lack of attention in conventional transport planning has been brought into stark relief.

The critical role that women play in certain key sectors of the economy within LICs such as healthcare and food marketing has also been brought into the spotlight. In particular, the mobility needs in terms of locations (e.g. healthcare facilities) and how well served they usually are by public transport, the times of travel (e.g. shift patterns outside of normal working hours) and the close interaction between women's mobility for food and their need to travel with produce as both buyers and sellers.

Finally, the substantial contribution that employment in the urban transport sector, often in precarious and poor working conditions, makes in providing livelihoods to large numbers across major cities within LICs.

The need to consider the survival and livelihoods of workers and their households in the urban transport sector as part of a wider livelihoods and household survival perspective during such emergencies was also a feature of the pandemic's impact.

HIGHLIGHTING INEQUALITIES

Gender inequalities and the negative impact they have on people's ability to respond in emergencies has been clearly shown by the range of research highlighted in this chapter. For example:

- Jennings, Arogundade and Allen highlighted the fact that the COVID -19 pandemic has been found to have a disproportionately negative effect on women's livelihoods. Women were reported as more likely to have lost their jobs and livelihoods (compared to men in similar circumstances), and to have encountered increased levels of care and family duties. Key stakeholders interviewed thought that women would struggle to return to previous levels of financial and societal independence and equality within the foreseeable future.
- The work of Shah, Rajiv and Lokre highlights that even in the post pandemic phase nearly 60% of low-income women's trips in the morning peak were met not by the significant public sector formal bus network but by the informal, commercially dominated, Intermediate Public Transport service. This was a result of a combination of poor formal bus frequency outside of assumed peak hours and destinations key to the employment of low-income women not being served by the formal system.
- The work of Randrianarisoa et al. highlighted the lack of consideration of the working standards and livelihoods of workers in the informal transport sector when planning transport sector responses to public health emergencies. This work reported a substantial, eightfold, increase in households connected to informal urban

transport employment with no regular source of revenue, resulting in this affecting over one in four of all households surveyed.

- The work of Randrianarisoa et al. also highlighted the public health measures in transport introduced to address the pandemic such as capacity restrictions in urban public transport, resulted in a significant exacerbation of the travelling experience of women and girls as the commercial operators sought to recover lost revenue. In Anatanarivo, Madagascar for example, minibus fares had increased by 10-15% due to restricted passenger numbers and increased sanitary and public health requirements.
- In the case of Delhi, Shah, Rajiv and Lokre also highlights the continuing sexual harassment of women and girls, during the pandemic-related public health measures, when using all forms of public transport.

FUTURE PLANNING

The research provides clear evidence of the need to incorporate the needs of women and children into transport planning processes for emergencies such as future pandemics.

In particular, there is a need, within emergency transport planning, to incorporate and invest in the need to maintain mobility for access to food and preserve food security, healthcare and social care, as recommended by the work of Jennings, Arogundade and Allen. This is a significant but necessary counterpoint to the traditional focus of transport planning on the journey to work, especially of men travelling unaccompanied for the sole purpose of travelling to work.

However, there are a range of planning techniques that can assist with the re-focusing of transport planning approaches in such context. Accessibility planning and the guidelines on accessibility planning, developed by Stott and Stringer in this publication, sets out a constructive way forward.

The research in this chapter, more generally, provides evidence of the need to incorporate the voices of women, children, people with disabilities and workers within informal public transport into transport planning and decision-making. The work of Shah, Rajiv and Lokre recommends that in order to incorporate the needs of low-income women, transport authorities should pursue clear engagements structures - such as Transport departments collaborating with women's unions, membership-based organisations (MBOs) and civil society organisations when devising transport policies.

There is also a need to develop mechanisms where the needs and experiences of women and girls are incorporated into the regulations, operations, management and commercial practice of informal public transport. The creation of regulatory regimes that support increasing quality amongst informal transport operators and the development of incentives for operators to build on the flexibility that informal transport systems can offer is a crucial area where further research is needed.

Finally, there is a need to develop robust mechanisms for delivering public policy objectives through improved public transport systems. This is either in terms of subsidies for low-income users or support for the livelihoods of workers in the public transport sector in terms of emergencies.



Mr Jeff Turner

*Gender, Inclusion and Vulnerable Groups Theme Leader
High Volume Transport Programme*

Moving towards gender equitable public transport operations in a post COVID-19 world

STUDY COUNTRIES: INDIA

APPLICABILITY: AFGHANISATAN, BANGLADESH, PAKISTAN

RESEARCH SUPPLIER: SONAL SHAH

AUTHORS: SONAL SHAH, RITHVIKA RAJIV, ABHIJIT LOKRE

SUMMARY

The economic and social repercussions of the COVID-19 pandemic and subsequent lockdowns disproportionately affected resource poor women (RPW) the world over. They struggled with loss in incomes, compounded by increased care and domestic work, and an escalation of domestic violence.

Mobility is vital for the economic recovery of RPW workers as they are dependent on public transport, paratransit, and walking. In South Asia, public transport systems resumed with curtailed services post lockdown, reduced passenger capacity and increased fares. However, there is limited awareness of the impacts of COVID-19 on women's mobility in low and lower-middle income countries (L&LMICs), and how gender responsive public transport measures can be adopted.

This research takes a deep dive in Delhi, India, to understand the impacts of COVID-19 on the mobility of RPW. The research focused on the impacts of the nationwide lockdown imposed from 24th March to 31st May 2020. The research provides evidence to inform policy guidance and responses on addressing gender equity in public transport specifically in Delhi and more generally across L&LMICs in South Asia.

RESEARCH FINDINGS

The study found that, when compared to COVID-19 related mobility issues, pre-existing issues related to public transport proved more or equally detrimental to RPW. Specific findings were as follows:

- In Delhi, spatial analysis revealed that women's workforce participation reduces with poor public transport connectivity.

Resource poor women

- Less than 1.8% of RPW have access to a personal vehicle in Delhi, where there are 616 vehicles per 1000 people;
- As only 10% of RPWs have access to a shared or personal smartphone, they are unable to benefit from mobile applications that provide real time information and enable contactless ticketing;

- Post lockdown the study found that buses cater to 81% of all trips by RPW, however Intermediate Public Transport (IPT) caters to 57% of their trips in the morning peak hours. This could imply either poor bus frequency during off-peak hours, or that the destinations to which RPW travel are not served by buses; peak travel time for RPW is 11 am-12pm in the morning and 2-3 pm in the afternoon, unlike women of other income groups whose peak hours are 9-10am and 5-6 pm;
- The above points illustrate that travel patterns of RPW differ from women of other income groups, highlighting the need for differentiated strategies to achieve equity in gender responsive public transport. This applies for both COVID-19 specific mobility responses and overall gender specific mobility responses;
- 79% of RPW in Delhi did not work in the 68 days of the lockdown and have lost an estimated INR 754 crores (approximately £75.4M) in incomes;
- During the pandemic, 99% of all trips made by RPW workers were work related;
- Concerns expressed by RPW related to bus-based travel were consistent with issues faced pre-COVID. These include buses not stopping for them after the free ride scheme for women was introduced (21%), no enforcement of reserved seating for women (17%), and poor frequency of buses (16%);
- Concerns regarding physical distancing and sexual harassment were eclipsed by the above concerns.

Intermediate public transport (IPT)

IPT is vital to the mobility of RPW in India and most L&LMICs. Operating IPT vehicles provides a flexible form of employment for RPW. Moreover, women operators improve the perception of safety and comfort for female passengers. The study found that:

- The few women e-rickshaw owner-operators (Vahinis) earn 28% less than their male counterparts, due to safety concerns, household and care tax;
- The fall in number of passengers during the pandemic resulted in severe economic loss for IPT service providers to the tune of INR 1,741 crore (approximately £174.3M) over a period of nine months (24th March-December 2020).

RECOMMENDATIONS

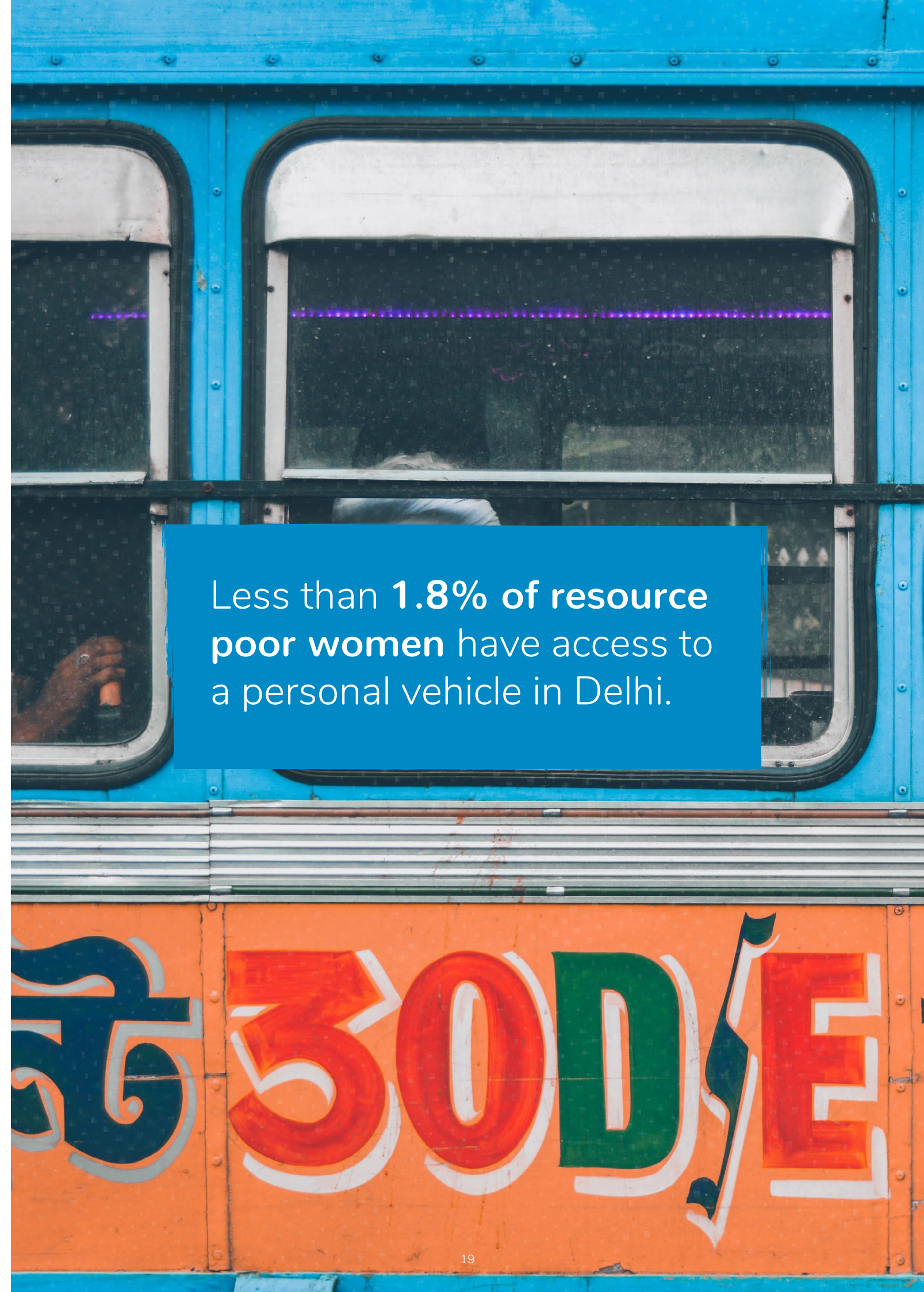
The pandemic brings a unique opportunity for the recovery period to create a more inclusive model for urban transport. The learnings from this study, while framed within the context of Delhi, are relevant for the urban local bodies and the provincial/ state-level transport departments in L&LMICs in South Asia. These include:

- Transport departments must collaborate with women's unions, membership-based organisations (MBOs) and civil society organisations when devising transport policies to understand the needs of RPW and to disseminate information that facilitates effective uptake of transport schemes;
- Improve digital literacy of RPW to increase understanding and uptake of transport schemes and to increase use of digital payments;

- Create a dedicated team for women's safety in the command-and-control centre (or equivalent) to register and respond to women's complaints, such as buses not stopping and sexual harassment on buses;
- Provide a multimodal mobility subsidy for RPW in recognition of how women have been disproportionately affected by economic loss during the pandemic and to mitigate issues related to poor reliability of bus-based transport (in 2019, Delhi introduced a free bus ride scheme for women);
- Improve reliability of bus services through the implementation of a free SMS based real time information (RTI) system for buses that co-exists with the proposed passenger information boards at bus stops and the mobile application;
- Ensure seat availability in buses by implementing a policy for women-only-doors close to the reserved seats, and increasing awareness of the presence of bus marshals;
- Encourage women paratransit owner-operators through financial and procedural reforms and safety mechanisms;
- Ensure a level playing field for women paratransit owner-operators through policy interventions such as mandating that first and last mile connectivity fleets include women paratransit owner-operators, instituting creches etc;
- Frame equitable mobility as a constitutional right.

The pandemic, despite its calamitous effect on the population, presents a unique opportunity to build back better to create a more inclusive and green recovery model for urban transport.

[Read full report](#)



Less than **1.8%** of resource **poor women** have access to a personal vehicle in Delhi.

COVID-19 impacts on the peri-urban mobility of women and vulnerable households in Madagascar

STUDY COUNTRIES: MADAGASCAR

FUTURE TARGET COUNTRIES: BANGLADESH, MYANMAR, KENYA, LIBERIA, MALAWI, NEPAL, PAKISTAN, SENEGAL, SIERRA LEONE, TANZANIA, UGANDA AND ZAMBIA

RESEARCH SUPPLIER: ONG LALANA

AUTHORS: JESSE RANDRIANARISOA, ANA LUÍSA SILVA, PAUL STARKEY, HOLY RALIMAMY, NATHALIE RASAMISON

SUMMARY

The COVID-19 pandemic crisis exposed many social, economic and political vulnerabilities already prevalent. In many countries, including Madagascar, urban transport services were required to cease operating or reduce services and passenger numbers to reduce virus transmission. Mandatory mask wearing and disinfection protocols were often required. This research has highlighted some of the impacts of such transport restrictions on the lives of women and vulnerable households in Madagascar.

The project found that in the peri-urban area of Antananarivo, the capital city of Madagascar, poverty levels worsened due to the economic impacts of transport restrictions as a result of COVID-19. The pandemic also highlighted the fragilities of Antananarivo's peri-urban transport system.

The research also explores how the impact of COVID-19 on transport and the lives of women and vulnerable households compared to experiences in some other LICs and identifies solutions and policy recommendations for improvements that can be implemented in the short and long-terms.

RESEARCH FINDINGS

Before COVID-19, it was known that the majority of households in peri-urban Antananarivo were already vulnerable due to low levels of income. This research confirmed the negative economic impact of the pandemic. The percentage of households reporting daily revenues below the household poverty line (6.9 USD per day) went up from 64% to 79% during the COVID-19 restrictions period.

Household daily revenues saw an overall 59% reduction and the percentage of households declaring the lowest daily revenue tier (up to 2.5 USD) increased by 50% percent (from 41.4% to 60.7%). The percentage of households declaring no main or regular source of revenue saw an eightfold increase, from 3.4% to 27.1%. Over half (59.5%) of survey respondents reported in December 2020 that their income had not yet returned to pre-COVID-19 levels.

Half of surveyed households did not own a means of transport. Of those who did, 80% owned a bicycle. Minibus services are the only authorised public transport. 60% of passengers are women. Minibus fares increased by 10-15% due to restricted passenger numbers and sanitary requirements.

Before COVID-19, minibus services were people's main transport mode, followed by walking and bicycles. When the minibus services were banned or greatly reduced, walking became to the most common way to travel, followed by cycling. Bicycles, mainly used by men, became increasingly important for transporting agricultural produce into urban markets. Women benefitted from bicycle use by consigning goods to bicycle taxis and/or by delegating the transport of goods to male household members with bicycles.

Female farmers and women trading in agricultural products for the urban markets were particularly affected by transport restrictions. Without minibus services, many walked into urban markets carrying their produce. Higher transport and intermediary costs and price fluctuations also reduced the incomes of farmer-traders.

By December 2020, minibus services were again the main transport mode used by the respondents, but people perceived them to be unsafe in terms of COVID-19 risk. Walking and cycling were perceived to be much safer in terms of COVID-19, but more dangerous in terms of the risk of a crash, robbery or sexual harassment.

RECOMMENDATIONS


The COVID-19 transport and mobility restrictions have highlighted the fragilities of Antananarivo's peri-urban transport system. The pandemic now provides an important starting point for reform and improvement. Overall, plans should be based on greater dialogue and inclusion, involving transport users (women and others), transport operators, the transport regulator and the local governments.

To make the transport systems more adapted to the needs of their users, safer and more gender-inclusive, the vital minibus sector should be supported. However, greater emphasis should also be placed on the complementary roles of intermediate means of transport, including motorcycles, motorcycle taxis, three-wheelers, bicycles, handcarts and oxcarts. Depending on the context, infrastructure provision should be tailored to these modes of transport as well as for pedestrians.

Madagascar could also learn from the experiences in other countries with comparable situations such as Nepal, Myanmar, Uganda and Malawi. All these countries have similar urban and peri-urban transport systems. Their transport restrictions also contributed to increases in pedestrians and bicycles, but they were able to benefit more from the use of motorcycles, motorcycle-taxis and three-wheelers.

[Read full report](#)

[Lire le rapport complet](#)

A photograph of two women standing outdoors in front of a brick wall. The woman on the left is wearing a white headwrap with purple floral patterns and an orange top. The woman on the right is wearing a green and blue striped headwrap and a dark blue top. Both are wearing patterned skirts. The background shows a brick wall and some foliage.

Pre-pandemic inequalities related to gender and disabilities **widened as a result of COVID-19.**

Over 85% of women work
in the informal sector in LICs.
These **women** were more likely
to have **lost their sources of
income** and **suffer domestic
violence** and take on more
domestic work during the
pandemic.

Gaining or losing ground: Ensuring that post COVID-19 transportation serves the needs of women in low-income Sub-Saharan African cities

STUDY COUNTRIES: SOUTH AFRICA

APPLICABILITY: GHANA, KENYA, NIGERIA, RWANDA AND UGANDA

RESEARCH SUPPLIER: GAIL JENNINGS

AUTHORS: GAIL JENNINGS, EMMA AROGUNDADE, HEATHER ALLEN

SUMMARY

This research examining the intersections of transport, poverty, resilience and gender concludes that the COVID-19 pandemic has exacerbated existing inequalities for women and people with particular vulnerabilities in Sub-Saharan Africa. The research was conducted in South Africa, Uganda, Nigeria and Kenya, where there were widespread transport restrictions due to lockdown measures.

The study investigated the unforeseen risks and impacts of the rapid responses to the pandemic, especially in relation to urban transport, that particularly affected the mobility of women with low income. It looked at the impacts of COVID related containments, particularly in terms of health (mental and physical), job-losses, and gender-based-violence.

RESEARCH FINDINGS

The study was conducted through a combination of literature review and in-depth interviews with transport and gender experts and representative organisations from the countries in scope. Findings are reported under a wide variety of themes such as economic impact; transport availability and cost; essential workers and transport vulnerability; domestic responsibility; women who work in transport, loss of agency; personal security, harassment and violence; access to physical and mental healthcare; education; walking; cycling; and participation in decision making.

The researchers found that there is broad consensus that the crisis has worsened existing inequalities, in addition to creating new ones, and has been a disaster for women's empowerment. Women's needs and rights were largely overlooked in transport planning and investments even before the pandemic, and there was no evident change in the rapid responses in the countries studied.

This research shows women's development and progress in terms of the Sustainable Development Goals (SDGs) for example, is likely to be compromised. An overarching response from interviewees was that, in their view and experience, women had been particularly disadvantaged during 2020 due to the pandemic responses.

Both economic and social impacts were consistently mentioned, including that women were more likely to have lost their jobs and livelihoods (compared to men in similar circumstances), and this was compounded by increased levels of care and family duties. The combination of these two aspects suggests that many women will struggle to return to previous – yet already precarious – levels of financial and societal independence within the foreseeable future. All governments and decision-makers would do well to be concerned.

The impacts will not only impact commitments to the SDGs but will spill over and deepen many societal challenges that will compromise progress towards inclusiveness and equity. It is also likely to push more women out of the job market and down the gender pay gap ladder after decades of incremental improvements. A key finding of interest is that the answers to gender-sensitive transport planning are, in many cases, known, but rarely implemented.

The report includes several recommendations for short-term actions during the immediate COVID-19 emergency and recovery period such as

- Invest in routes to food security;
- Increase access for, and to, essential workers and healthcare workers;
- Provide physical and digital access to education; and
- Ensure that gender-based violence (GBV) services are accessible.

It also recommended action to ensure enduring gender-sensitive transportation such as:

- Recognise the multiple ways in which women move;
- Ask women what their needs are – and listen to what they say;
- Empower women and girls through transport rather than simply meeting basic standards;
- Revisit ways in which to provide subsidised services;
- Concentrate on making transport and public spaces safe for women;
- Plan for everyone.

[Read full report](#)

USER GUIDE: Best practice on designing for equitable public transport networks through accessibility modelling

STUDY COUNTRIES: MYANMAR

FUTURE TARGET COUNTRIES: BANGLADESH, EGYPT, GHANA, LIBERIA, NIGERIA AND SIERRA LEONE

RESEARCH SUPPLIER: ITP

AUTHORS: IAN STOTT, RUBY STRINGER

SUMMARY

COVID-19 has changed the dynamics of travel everywhere. Transport networks are generally based around the movements of the typically male journey - trips to a formal place of work. Whereas women typically take more complex journeys than men, which during the changes in travel due to the pandemic became even more important to the functioning of their households and society.

COVID-19 has therefore created a need to rapidly review and re-plan public transport networks in order to differently serve the most dominant journeys. As such, this project has sought to answer the core question, 'How can urban transport networks be rapidly reviewed, redesigned and rolled out for a more gender-equitable system?'

This project developed a best practice guide for transport planners in LICs to review and re-design more gender-equitable urban transport systems easily and rapidly. It takes an innovative approach using accessibility modelling that is easily replicable across a variety of LIC contexts.

The guide sets out the steps of mapping the reach of a network and access to and through it to highlight gaps. The approach was demonstrated using the network in Mandalay, Myanmar. It can be tailored to data availability and requires minimal investment and training.

WHY THE GUIDE IS NEEDED

Urban transport networks have historically been designed around journeys to work in the formal sector. However, although this tends to serve the male population well, women's journeys are typically more complex, involving more linked trips for care giving purposes and to informal employment, often accompanied by children or baggage. While journeys to the formal employment sector reduced due to COVID-19 restrictions, women's journeys did not, demonstrating their importance.

This has highlighted the need to review and re-plan public transport networks to serve changing travel trends. Moreover, the traditional use of journey to work origin-destination data in planning networks holds an implicit bias which fails to properly represent the journeys of all transport users.

WHO THE GUIDE IS FOR

This guide will be useful to transport planners in local governments with a good understanding of their local networks, and a working knowledge of geographic information systems (GIS). The process calls for less technical expertise than traditional transport network planning which uses complex models requiring highly skilled data scientists and modellers.

Accessibility modelling is faster, cheaper, and more widely available than full-scale transport modelling, with a process designed for inherently more equitable results.

HOW THE GUIDE WORKS

The guide shows how accessibility modelling assesses the potential of a transport network to provide opportunity to the surrounding population. Data is entered into modelling software to produce outputs in the form of maps (generally showing travel time) and tables (generally showing number of people within an acceptable travel time). It also has the benefit of reducing or removing the requirement for origin-destination data, which is often biased in favour of certain specific groups or misses out important journeys.

The guide is laid out to provide sufficient background to help users understand why the network in their city may need changing. It sets out a clear process to map:

- The reach of the network as it currently stands;
- Access to the network such as proximity to bus stops;
- Access through the network;
- Gaps in the network and further areas for exploration.

The guide signposts open-source tools and data available to undertake the work throughout the process. It is not intended to provide detailed technical training in GIS or guide the technical process of undertaking accessibility modelling.

The approach was informed by an in-depth literature review and expert consultation, the process is demonstrated using Mandalay, Myanmar to provide a worked example.

[Read full report](#)

DISABILITY

Pushing for disability inclusive transport



DISABILITY AND THE IMPACT OF THE COVID-19 PANDEMIC ON MOBILITY

The COVID-19 pandemic has had a substantial impact on the mobility of people with disabilities.

Public health measures globally, have placed restrictions on people's movement and have impacted on access to key elements of survival including food and healthcare facilities.

People with disabilities have been disproportionately impacted, especially in LICs, as a result of their frequently lower income status, the lack of accessible infrastructure and transport services that would make independent mobility possible, even in local neighbourhoods and the frequent reliance they may have on social networks outside of the home for access to food, healthcare and mobility.

Research reported in this chapter highlights significant reductions of everyday mobility of people with disabilities in terms of accessing work, food and healthcare. Whilst this may have been commonplace for many people as a result of public health measures such as 'stay at home' policies, the research reported in this chapter, highlights that this restricted mobility amongst people with disabilities appears to have continued, in a number of locations, despite the easing of mobility restrictions for the population as a whole. This inequality appears to come from a number of factors, including:

- Access to public transport was significantly restricted, during and after the most stringent COVID-19 related public health measures, in a number of locations through the reduced operation of informal transport operators and regulations seeking to restrict capacity amongst those operators who did work.

- This also increased waiting times and exacerbated the competition for limited seating space. This means that in contexts where informal public transport may constitute the predominant form of public transport, people with limited mobility may suffer a disadvantage in such competition leading to a lack of willingness to travel.
- Furthermore, heightened sensitivities to the risk of exposure to COVID-19 and perceptions of limited sanitary practices within public transport also added to a lack of willingness to travel.

Significant increase in or reliance on the use of individualised, more demand-responsive modes, such as bicycles, motorcycles, three-wheeler rickshaws and taxis, in order to facilitate essential mobility was widely reported by the research. Rahman reported that informal public transport modes, in the many cities his study surveyed, provided individual taxi-type services with higher fares both during lockdown and post-lockdown periods.

Even after public health measures were relaxed a slight decrease in usage of collective public transport vehicles and increase in private vehicles and individual public transport was observed. This has significant implications for affordability for people with disabilities who may have an increased need to use private vehicles and individual public transport but often have low income levels.

The implications of the COVID-19 pandemic for the future planning of mobility in emergencies including pandemics are multiple. As Rahman sets out below, in order to increase the independent mobility of people with disabilities there is a need to improve infrastructure for non-motorised modes of transport in the city, promoting sustainable modes and ensuring integrated multimodal public transport.

Coupled with this, as Ojekere et al highlight, the increased reliance of people with disabilities on taxi cabs and commercial motorcycles and tricycles during the implementation period of COVID-19 measures and afterwards means that these individuated modes should be strengthened to continue to meet future emergency travel needs of people with disabilities.

In addition, Hudumapulus set out the need for changing driver behaviour and skill levels to improve the accessibility and service quality of public transport for passengers with disabilities. These include equipping the drivers and conductors with the skills needed for serving passengers with disabilities; and training taxi drivers to learn how to carry and fold wheelchairs.

Perhaps most importantly, the findings highlight the critical need to have the voices of people with disabilities heard not only in the development of emergency transport planning for future pandemics but also significantly for conventional long-term transport planning processes.

There is a clear need to develop tools and professional practices that allow the incorporation of the voices of people with disabilities with a diverse range of lived experiences into transport sector decision-making. This is not only for people with disabilities but also planning practice that incorporates a range of excluded voices including women, young people and older people and low-income communities as well as capturing the people, such as older people with disabilities that live at the intersection of multiple exclusions.



Mr Jeff Turner

*Gender, Inclusion and Vulnerable Groups Theme Leader
High Volume Transport Programme*

Analysis of Public Transport Inclusiveness among Persons with Disabilities during COVID-19 in Benin City, Nigeria

STUDY COUNTRIES: NIGERIA

FUTURE TARGET COUNTRIES: CAMEROON, COTE D'IVOIRE, GHANA, LIBERIA, NIGER AND TOGO

RESEARCH SUPPLIER: DEPARTMENT OF URBAN AND REGIONAL PLANNING, FACULTY OF ENVIRONMENTAL DESIGN AND MANAGEMENT, UNIVERSITY OF IBADAN, IBADAN, NIGERIA

AUTHORS: STANLEY OJEKERE, OLAJIDE OJO AND DANIELLA MKPANDIOK, JEFF TURNER

SUMMARY

Physical distancing and other strategies to contain the spread of COVID-19 have resulted in changes and restrictions on traveling at local, regional and international levels. These measures may negatively impact on the travel needs of people with disabilities, especially those with mobility restrictions. This research examined mobility styles and travel behaviours of people with disabilities in Benin City, Nigeria before and during the COVID-19 pandemic.

RESEARCH FINDINGS

The study found that there was a significant change in why people with disabilities travelled during the period of COVID-19 measures. Respondents reported making less trips to workplaces and more trips for essential services, such as markets/ grocery stores in Benin City, compared to before the COVID-19 pandemic outbreak.

How often respondents travelled was also significantly reduced during the COVID-19 measures. Whereas before the onset of the pandemic over 27% made more than five trips a day, this dropped to just over 14% during the implementation of COVID-19 measures. Whereas just under 18% made only one trip per day before the implementation of COVID-19 measures, this increased to over 27% once measures had been implemented.

How respondents travelled also appeared to change. The use of more individualised, demand-responsive and door-to-door means of travel seemed to increase. Respondents reported that minibus was their most commonly used mode of travel before the implementation of COVID-19 public health measures whereas this dropped during the measures.

By contrast there was an increase in respondents who cited taxi cabs and commercial motorcycles/ tricycles as their most commonly used travel mode. Some of this change in mode use may be down to the greater availability of these individual modes throughout the implementation period of COVID-19 public health measures compared to minibuses which were frequently restricted in terms of operation and capacity.

The cost of travel for respondents also appears to have increased significantly during the implementation period of COVID-19 public health measures. This resulted in a reduction of the affordability of public transport for a number of respondents with disabilities. Over 40% reported that they struggled to afford public transport during the period of COVID-19 measures whereas this figure was just over 34% before the onset of the pandemic.

The satisfaction of respondents with the operation of public transport also changed during the implementation of COVID-19 measures. Of significance was the reduced satisfaction with boarding and alighting time of public transport. Whereas just over 34% of respondents reported this as not sufficient prior to the pandemic, this increased substantially during the implementation of COVID measures to nearly 59% of respondents reporting this as not sufficient.

There was a significant impact on the sustainable livelihood of people with disabilities due to the COVID-19 transport measures, including:

- Before COVID-19 61.7% of respondents could not move around on public transport and generate income while during COVID-19 this amounted to 85.3%;
- Before COVID-19 59% of respondents could not move around on public transport to search for and secure employment while during COVID-19 this amounted to 88.7%.
- Before COVID-19 55.7% of respondents could not move around on public transport to secure better education and training while during COVID-19 this amounted to 83.7%;
- Before COVID-19 51.9% of respondents could move around on public transport in order to invest in economic opportunities/saving while during COVID-19 this amounted to 80.8%;
- Before COVID-19 41% of respondents could not move around on public transport to engage in social network and community relations while during COVID-19 this amounted to 69.5%;
- Before COVID-19 41.5% of respondents could not move around on public transport to secure better healthcare while during COVID-19 this amounted to 72.3%.

Lack of inclusion in public transport affected the sustainable livelihoods of a greater percentage of the respondents before and during COVID-19 in Benin City, Nigeria.



Photo Credit: Ojekere, Ojo and Mkpandio, University of Ibadan

RECOMMENDATIONS

Drawing from these findings the research raises a number of recommendations including:

1. The government should see how it can mainstream the opinion of PWDs groups into current and future public transport policy formation/implementation.
2. The increased reliance of people with disabilities on taxi cabs and commercial motorcycles and tricycles during the implementation period of COVID-19 measures means that these modes should be strengthened to continue to meet future travel needs of people with disabilities.
3. Government efforts should be expanded to also focus on providing low floor buses for easy boarding and alighting for people with impaired mobility, initially focus was on the government-owned and operated public mass transit scheme - Edo City Transport Services (ECTS).
4. Transport fare support/subsidies should be introduced for people with disabilities on public transport in Benin City. This will help to reduce the financial burden of travel and improve their accessibility to sustainable livelihood opportunities during and post-COVID-19.
5. There should be a focus on the training of public transport staff especially around disability awareness/orientation. This will enable public transport staff to be better informed about such needs and how best they can be met.



Over **40% of persons with disabilities** reported that they **struggled to afford public transport** during the period of COVID-19 measures.

Impacts of COVID-19 on mobility of elderly people and people with disabilities in low-income countries

STUDY COUNTRIES: BANGLADESH, PAKISTAN, TANZANIA AND ZAMBIA

FUTURE TARGET COUNTRIES: AFGHANISTAN, INDIA, KENYA, MALAWI, MYANMAR AND ZIMBABWE

RESEARCH SUPPLIER: M. SHAFIQ-UR RAHMAN

AUTHORS: M. SHAFIQ-UR RAHMAN

SUMMARY

Transport infrastructure for people in LICs is often inadequate, unsatisfactory and inaccessible to many people, especially for those living below the poverty line and is very limited for elderly people and people with disabilities. The limited transport and mobility options for elderly people and people with disabilities have been further reduced by the effects of the COVID-19 pandemic.

This study focused on the travel behaviour of people with disabilities and the elderly to gain insight into their coping strategies and so to increase the awareness of transport policymakers and decision makers.

RESEARCH FINDINGS

- It was found that public transport services in Bangladesh, Pakistan, Tanzania, and Zambia are very poor and lack appropriate infrastructure to facilitate mobility of elderly people and people with disabilities even before the COVID-19 pandemic.
- During the lockdown and post-lockdown periods, the research found that elderly people and people with disabilities often avoided traveling or reduced the frequency of trips;
 - ◊ The impact of COVID-19 during lockdown periods was greater than the impact during post-lockdown periods. For example, during lockdown the amount of public transport was low and as a result those who wanted to go out for work or medical supplies had to wait a longer time or use private vehicles. For those who travelled during the lockdown, their frequency of travel was much less compared with before the COVID-19 situation. However, the effects were not the same in the four countries as the level of lockdown was different;
 - ◊ Reduced travel was also due to imposed restrictions on travel and movement during lockdown;
 - ◊ A fear of being infected by COVID-19 during movements out of home also reduced frequency of trips.

- The main purposes for trips during lockdown and post-lockdown by elderly people and people with disabilities were purchasing groceries (or shopping more generally), work, and medical visits. During lockdown, social and recreational trips were completely avoided. During post-lockdown social trips increased to around 10% of all trips, though recreational trips are less, compared with before COVID-19.
- Elderly people and people with disabilities changed travel mode with a switch from public transport or shared vehicles to private and non-motorised modes;
 - ◊ During lockdown, the use of public transport reduced in comparison to before COVID-19, while walking, cycling and private modes increased;
 - ◊ Except in Dhaka, Dar-es-Salaam and Zanzibar, the usage of paratransit modes during lockdown increased in cities. Paratransit modes in many cities provided individual taxi-type services with higher fares both during lockdown and post-lockdown periods;
 - ◊ During post-lockdown, a slight decrease in usage of public transport and increase in private vehicles was observed in all the cities.
- Elderly people and people with disabilities faced increased travel costs and decreased income during lockdown and post-lockdown.
- Due to COVID-19 there was limited availability of public transport vehicles, which resulted in increased waiting times. As a result, more people were forced to walk creating an additional challenge for elderly people and people with disabilities.
- The COVID-19 pandemic meant that all people needed to maintain physical social distancing and to use masks and hand sanitizers. This meant that there was a reduced seating capacity in buses to maintain social distancing and this was challenging for elderly people and people with disabilities. Wearing face masks was also potentially uncomfortable for breathing.
- There was a lack of compliance for maintaining physical distancing and wearing face masks or using sanitisation. For example, it was observed that despite a requirement to maintain social distancing of three feet and for public transport to restrict seating options to support social distancing this was often not happening and people would be in close contact. In addition, in the beginning of the pandemic soap/water was provided in front of the buildings/stations and hand sanitizers were provided in the bus, however, after several days these were not available regularly.

RECOMMENDATIONS

Based on the results of this research, the following policy options are recommended:

- improve infrastructure for non-motorised modes of transport in the city, promoting sustainable modes and ensuring integrated multimodal public transport;
- provision of transport infrastructure and services that are accessible for elderly people and people with disabilities;
- provision of subsidy for the travel cost of elderly people and people with disabilities, thus reducing the price of tickets (particularly during COVID-19);
- enhance planning and regulation of informal modes or para-transit transportation in LICs.

[Read full report](#)



Elderly people and **people with disabilities** faced **increased travel costs** and **decreased income** during both lockdown and post-lockdown time periods.

What are the impacts of and responses to COVID-19 in addressing the mobility of people with disabilities?

STUDY COUNTRIES: TANZANIA	FUTURE TARGET COUNTRIES: BENIN, BURUNDI, CONGO DEM REP., DJIBOUTI, ETHIOPIA, GHANA, MALAWI, MAURITANIA, NEPAL, RWANDA, UGANDA, ZAMBIA AND ZIMBABWE.
RESEARCH SUPPLIER: HUDUMAPLUS	AUTHORS: HUDUMAPLUS AND JEFF TURNER

SUMMARY

Physical distancing and other strategies to contain the spread of COVID-19 have resulted in changes and restrictions on traveling at local, regional and international levels. These measures may negatively impact on the travel needs of people with disabilities, especially those with mobility restrictions.

The Tanzanian Government imposed significant public health measures and restrictions in March 2020, in line with many countries across the region. However, the government decided that Tanzania was clear of COVID-19 and relaxed all measures. This study examined mobility styles and travel behaviour of people with disabilities in Tanzania, where 4.2 million people are living with disabilities both during and after the lifting of COVID-19 public health measures.

A key focus of the study was exploring the mobility of people with disabilities, particularly those who were female, young or older, and how they accessed services, such as homes, schools, healthcare facilities and workplaces during the COVID-19 pandemic. It highlights the impact of public health measures on the mobility of people with disabilities and the effect of governmental decisions to reduce such measures that may have implications for other LICs in the region.

RESEARCH FINDINGS

- The study found that whilst more people with disabilities in Tanzania chose to travel on foot during the height of the pandemic (for example, 43% of journeys to shops were made on foot during COVID-19 public health measures compared to only 31% after measures were lifted), when they did choose to access public transport, they faced challenges. This was true before and during the pandemic.
- The study also found that the pattern of why people travelled changed during the implementation of COVID-19 measures. 57% of respondents reported daily travel to work after the lifting of COVID-19 restrictions compared to 2.5% of respondents traveling daily for work during the period of COVID-19 measures.

By contrast, less than 1% of respondents travelled daily to major food markets or supermarkets and over 60% reported making shopping trips of 3-4 a week compared to only 32% traveling daily and 49% 3-4 times a week after restrictions had been lifted.

- Public transport was not accessible or inclusive, particularly for elderly people or children with disabilities. 81% of respondents reported that disability made them feel more at risk from COVID-19 when traveling, while almost 10% reported age and 15% reported less transport availability related to COVID-19.

Qualitative interviews highlighted respondents’ feelings of being a burden, an object of pity and looked down upon by transport staff when travelling on public transport. One respondent reported that: *“Because there’s no special public transport for people with disabilities it is hard while taking dala dala in my wheelchair. Not all people care about you and can give you a hand. Sometimes it felt like segregation”*.

The interviews also highlighted some of the challenges for older people with disabilities as public health measures reduced capacity of public transport and availability of minibus services. One respondent said *“Because I wasn’t able to fight for a seat because of my age, it was hard to reach my workplace on time, so it also risked my business and daily life financially”*.

- For journeys of any significant length during the height of COVID-19 public health restrictions, the study found significant use of motorised/non-motorised tricycles. During the implementation of COVID-19 related measures, for example, respondents used motorised tricycles for 27% of journeys to healthcare, but only for 12% after the lifting of measures.

Operators of this means of travel continued to operate throughout much of the pandemic and respondents with disabilities reported them as the means of choice due to their ability to more easily respond to their travel needs.



Photo Credit: Hudumaplus

RECOMMENDATIONS

The study makes several recommendations in designing ongoing COVID-19 public health measures to support the pandemic recovery phase and to respond to future pandemics and these have been disseminated to a range of relevant stakeholders. These are:

- Protecting people with disabilities and responding effectively to COVID-19 are not mutually exclusive. Many countries have shown that travel restrictions and physical distancing measures can and should be safely implemented in full respect of the rights of people with disabilities.
- People with disabilities are part of the solution. The best way to recognise the important contribution made by people with disabilities to our societies during the COVID-19 pandemic is to remove barriers that inhibit their full potential. This is also the case in the development of actions towards delivering the SDGs and National Economic Development Plans.
- Accessible and safe public mobility infrastructures should be achieved by applying universal design approaches, for every stage of people's everyday journey, from door to door. The Disability Inclusive Transport Policy Guidelines and the Road Note 21 both produced by the High Volume Transport programme are useful references in this regard.

People with disabilities that were interviewed for the research also highlighted a number of concrete actions that would improve their daily mobility in Tanzania. These included:

- Changing driver behaviour to improve safety for passengers with disabilities, equipping the skills needed for serving passengers with disabilities (e.g. training taxi drivers to learn how to fold a manual wheelchair by following the directions of a wheelchair rider who needs to transfer to a regular seat.)
- Training and equipping drivers and conductors with basic communication skills for communicating with people with disabilities, particularly those with hearing impairments or learning disabilities.
- Providing the necessary protective equipment to allow people with disabilities to comply with COVID-19 related public health measures (such as the available hand washing equipment that are adapted so as to be used by people with physical disabilities).



FUTURE PROOFING

Building resilient and sustainable transport

FUTURE PROOFING: READINESS FOR A BETTER TRANSPORT SYSTEM

COVID-19 has had, and is still having, a substantial impact on transport systems around the globe.

The effect has been strongest on the most vulnerable and poorer parts of society in the LICs. The provision of public transport – formal and informal – was reduced and ticket prices increased. Business owners suffered and not all countries provided additional support to the drivers.

Many people found they had limited access to their jobs. At the same time, governments started to make use of the crisis with rapid responses starting to transition to a more resilient, sustainable transport system, e.g. the building of “pop-up bike lanes” was an iconic response observed around the globe.

The research projects in this chapter identified opportunities for improving the transport system in LICs during the pandemic responding to the need for safer and healthier solutions. The need for better preparedness for such crises combined with the need for enhancing action towards a safer, cleaner and more efficient transport system can lead to a “future proofing”.¹

As defined by Brian Rich: “Future-proofing is the process of anticipating the future and developing methods of minimising the effects of shocks and stresses of future events.”

The summary of the research on future proofing, is clustered into three parts:

- Economic/Emergency Response
- Urban Mobility
- Health and Safety

ECONOMIC/EMERGENCY RESPONSE

The **research on the COVID-19 impact and response in seven African countries** (Cameroon, Kenya, Morocco, Mozambique, Senegal, Tanzania, Uganda) showed the challenges to the passenger and freight transport system and how it affected the local community. Freight transport was particularly affected by the restrictions on cross-border transport, which led in some places to food shortages and delays in the supply chains.

The COVID-19 related restrictions on passenger transport affected in particular public transport owners and users. A reduced productivity was observed as workers could not reach their workplaces. At the same time in countries like Morocco and Mozambique, more walking and cycling was observed. The need for a cross-ministerial national taskforce to enable better coordination with the management of the transport sector is one of the lessons learned for the future.

A better regional alignment to improve rules and regulations for cross-border traffic could improve the regional economy not only in times of COVID-19. Better regulation of public transport fares and in times of crisis to provide national resources to avoid the increase of ticket prices by transport operators to mitigate their losses is seen as another policy for improving access for all in LICs beyond the pandemic.

Finally, the report highlighted the importance of informal transport in Africa and therefore the need to integrate their services in planning future public transport systems.

Similar observations were made for **the Tanzanian transport sector** by the Chartered Institute for Logistics and transport (CILT).

Their research, based on stakeholder interviews and a member survey, highlighted the substantial impact on the local economy of COVID-19 restrictions. Limited public transport, reduced rail services (less than 10 trains per day were running) and less efficient logistics were the main impacts on the transport system in Tanzania. In addition to the recommendations from above they highlighted the need for better data to manage transport during, but also after the pandemic.

The **Planning Guide**, based on international good practice, included many of the above recommendations. It argues, that a longer established vision and plan for urban mobility is not only useful for guiding national and international investment, but also to increase resilience to future pandemics.

URBAN MOBILITY

Another strategic guidance on urban mobility focusing on India provides ways of moving ahead with urban mobility reforms and building more resilient systems. The report focuses on future enablers for better walking, cycling and bus-based public transport as a backbone of urban mobility in India.

The authors identify key levers that have driven reform, such as organisational set up, reforms, institutional resilience, finance mechanisms and planning methods and tools.

For improving walking and cycling in India, creating Non-Motorised Transport committees and establishing commissioners for walking and cycling, is identified as a key institutional element to strengthen the institutional recognition of those modes. Local and national events to promote walking and cycling should improve the future demand.

The call for bold pilot projects, like the implementation of pop-up bike lanes, is another key element towards a transport transition in India. These actions need to be accomplished by systematic investment in modernising fleets and capacity building for municipal staff.

As in many countries in LMICs, informal transport is playing a crucial role to move people, but is often neglected in transport planning. Treating informal public transport as part of an integrated system providing particular last mile connectivity should be part of a regulatory reform coordinating all modes of transport in a post COVID-19 era.

To improve the public transport system in times of COVID-19 and beyond was also the focus of the research on Tactical Transit Lanes (TTLs) in three cities in Africa (Cape Town, Nairobi and Kampala). TTLs, which are temporary improvements to public transport systems through separated lanes by using low-cost material, could save fuel costs and workforce time for operators through faster travel time and therefore mitigate part of the losses during COVID-19.

Their case studies demonstrated that TTLs could provide additional capacity and therefore fuel and time savings for operators. The value for such pilot projects could be to demonstrate public transport priority as part of a long-term strategy for public transport services.

In parallel to the TTL research, another project looked at the opportunities for pop-up bike lanes in the same three cities. The authors identified, in consultation with local partners, several corridors and provided some initial designs based on international good practice.

Key findings were that there is a need for a clear demand led infrastructure provision (e.g. cyclists would not choose a longer bicycle route as an alternative to direct road connections without a bike lane). Pop-up bike lanes could be helpful to demonstrate the value of cycling. For future large-scale implementation, detailed standards and guidance would be needed to improve the quality of the planning and design.

HEALTH AND SAFETY

A study focusing on the motorcycle taxi sector in Sub-Saharan Africa shared lessons learned on how the sector could benefit from the experience of the pandemic as well as how to improve the acceptance of health and safety regulations by the industry. Data collected in six countries – three in West Africa (Sierra Leone, Liberia and Ghana) and three in East Africa (Uganda, Kenya and Tanzania) – showed that due to the dependence on income for the drivers, governmental COVID-19 related restrictions were often not followed.

To improve the situation in the future, consultation with the driver's association, which was only done in Sierra Leone, is seen as one part of improving the acceptance of imposed rules. Secondly, the need for a driver's financial safety net should be imposed on the sector through governmental regulations. At the same time, positive developments like the increased uptake of IT driven solutions like mobile payments and increased use of ride hailing apps should be further supported by national governments (e.g. better access to micro-credit loans for operators to establish IT based applications).

Transport workers, particularly in public transport, were exposed to a very high risk of COVID-19. A Tanzanian case study on the health of this workforce showed the importance of training the workforce on

health and safety measures as well as consistent communication. Their study showed that while the training on hygiene measures, like avoiding handshakes, was effective immediately after the training, once the national government changed their policies, lifted any restrictions and promoted alternative medicine to treat COVID-19, the use of personal protection equipment (PPE) reduced substantially.

The impact of COVID-19 related policies in Bangladesh highlighted the need to collect better data to understand policy impacts. The authors found that restricting public transport had limited benefit in reducing the impact of the pandemic. Surprisingly also the impact on air quality in Dhaka was limited due to specific weather conditions as well as a high level of emissions from other sectors such as industry.

These studies have shown that aligning future plans for a healthier, safer, cleaner and efficient transport system will not only allow to reduce the impact of a pandemic, but also improve the access and safety of the people in LICs. More pilot studies, collecting more and better data to assess policies and measure impacts, and better integration of transport services are key lessons learned not only for governments in the LICs, but also for guiding future international support.



Mr Holger Dalkmann
Urban Mobility Theme Leader
High Volume Transport Programme



Making Transport in Low-Income Countries Resilient to Pandemics: A Planning Guide

STUDY COUNTRIES: ALL LOW- AND MIDDLE-INCOME COUNTRIES	FUTURE TARGET COUNTRIES: ALL LOW- AND MIDDLE-INCOME COUNTRIES
RESEARCH SUPPLIER: TRL (UK)	AUTHORS: KEVIN MCPHERSON, ROBIN WORKMAN, ROB LEE

SUMMARY

Transport and health are inextricably linked. During a pandemic, transport is critical to maintaining access to vital services that support economic activities and livelihoods. However, transport acts as a vector that spreads contagious diseases, and until recently most transport policies and strategies paid little heed to public health.

The transport sector across the world has responded to the COVID-19 pandemic with a host of short-term actions and policy measures. But, for these initiatives to have long-term value and greater resilience to future pandemics they need to be more closely integrated with health sector activity.

The new Planning Guide is based on international good practice. It is designed to be used by governments in LICs and development partners to help plan investments in sustainable transport networks that increase resilience to pandemics and provide mobility for all.

WHY THE GUIDE WORKS

COVID-19 and government measures to curb its transmission disrupted transport services around the world. Transport services underpin national economies, provide access to jobs, health, education and other services fundamental to social wellbeing, livelihood and development. Disruptions arose from the cancellation or suspension of public bus and rail transport, taxi services and logistics services.

These changes in service reduced mobility and caused delays in the movement of freight within countries and across borders. Bus companies, haulage companies and railways lost revenue, and budgets for maintaining road and rail infrastructure were reduced due to lower tax revenue or toll incomes. Commerce and the economy declined, livelihoods were threatened, and forecasted mobility and long-term transport demand became uncertain.

Thus, there is an urgent need for an integrated planning approach to make transport more resilient to future pandemics.

WHY THE GUIDE IS NEEDED

The Planning Guide supports decision makers and practitioners in transport and public health planning. It provides specific advice for different groups of transport stakeholders from national ministries, road and rail infrastructure managers, public and private sector transport operators, and freight and logistics organisations.

HOW THE GUIDE WORKS

The Planning Guide provides a series of checklists based on a literature review of international good practice of transport agencies around the world in their response to COVID-19, as well as to other pandemics and natural disasters.

There are two main areas:

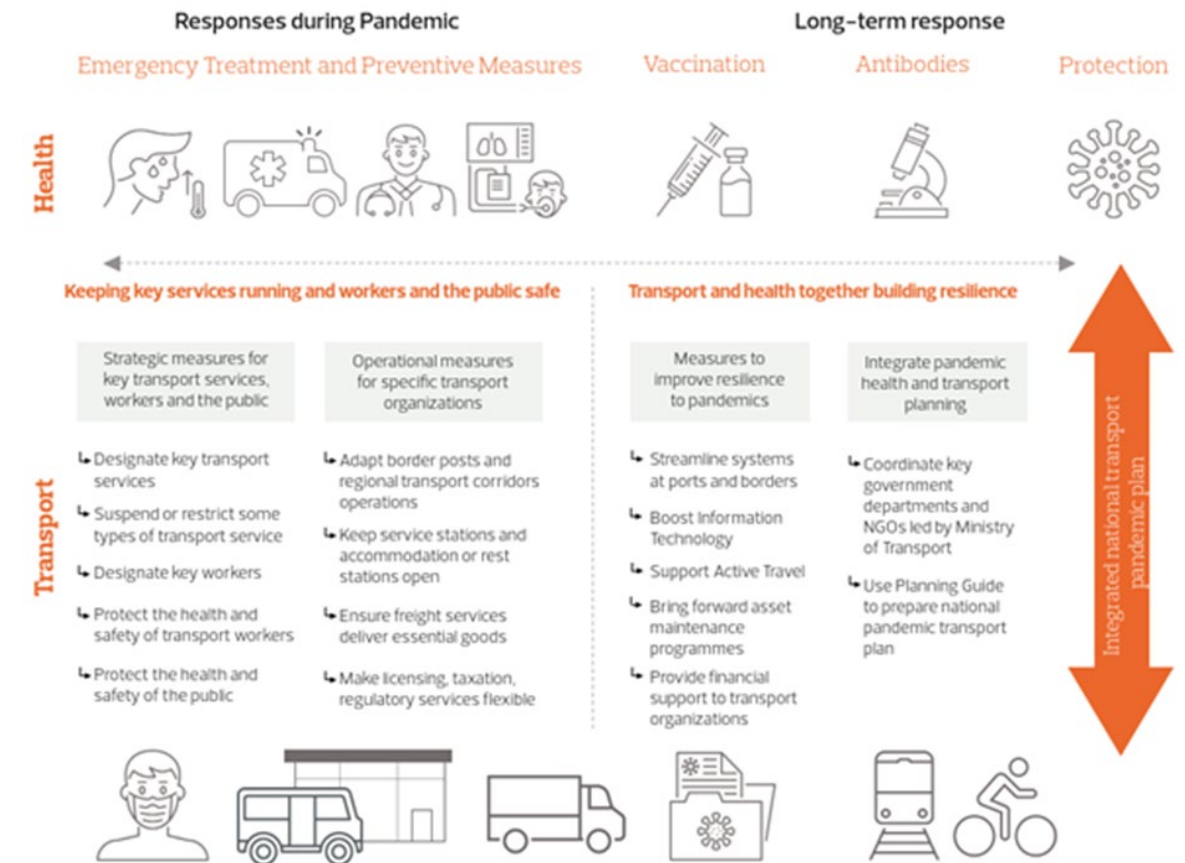
- Operational planning measures in response to pandemics.
- Long-term planning measures to improve resilience to pandemics.

The checklists indicate primary (●) and secondary (●) responsibilities amongst transport actors:

Operational planning measures in response to pandemics	Health Agencies	Transport Ministries	City Transport Authorities	Infrastructure Agencies	Public Transport Operators	Freight Operators	Warehousing and logistics	Toll Road Operators	Border Crossing Agencies	Other transport service providers	Driver and Vehicle Licensing Agencies
All transport organisations											
Protect health and safety of workers		●	●	●	●	●	●	●	●	●	●
Protect health and safety of the public		●	●	●	●	●	●	●	●	●	●
Develop contingency plans for absenteeism		●	●	●	●	●	●	●	●	●	●
Provide public information about services		●	●	●	●	●	●	●	●	●	●
National Transport Ministry											
Development of transport plan for pandemics	●	●	●	●	●	●	●	●	●	●	●
Lead and coordinate key government departments and NGOs	●	●	●	●	●	●	●	●	●	●	●
Designate transport workers as key workers		●	●	●	●	●	●	●	●	●	●
Designate transport services as key services		●	●	●	●	●	●	●	●	●	●
Provide transport services for key workers	●	●	●			●	●	●	●	●	●
Review customs and staffing arrangements at ports and borders		●									
Reschedule asset management programmes		●	●	●				●			
Review and update regulations for vehicles and vehicle use		●									●
Develop contingency plans for sourcing essential goods & services		●				●	●		●		
Foster awareness training	●	●	●	●	●	●	●	●	●	●	●

Operational planning measures in response to pandemics	Health Agencies	Transport Ministries	City Transport Authorities	Infrastructure Agencies	Public Transport Operators	Freight Operators	Warehousing and Logistics	Toll Road Operators	Border Crossing Agencies	Other transport service providers	Driver and Vehicle Licensing Agencies
Universal Access											
Develop policies to restrict the movement of people and goods		●	●	●	●	●		●	●	●	
Develop rationing and distribution mechanisms for essential goods		●	●			●	●	●	●		
Consider government subsidies, grants and loans to transport providers and operators		●	●		●	●		●			
Set up basic social protection measures for transport workers		●	●	●	●	●	●	●	●	●	●
Consider government subsidies, grants and loans to support active travel and alternative transport modes		●	●								
Consider subsidies for groups such as key health workers or persons with disability	●	●	●								
Develop inclusion policies and programmes	●	●	●	●	●	●	●	●	●	●	●
Establish training programmes for transport workers covering health, safety and security	●	●	●	●	●	●	●	●	●	●	●
Develop emotional support programmes for transport workers	●	●	●	●	●	●	●	●	●	●	●
Efficiency											
Strengthen and adapt border crossing procedures		●			●	●	●	●	●		●
Implement e-procurement systems		●	●	●	●	●	●	●	●	●	
Implement e-payment systems		●	●		●	●	●	●	●	●	●
Implement information systems for public messaging		●	●	●	●	●	●	●	●	●	●
Develop metrics for resilience		●	●	●	●	●	●	●	●	●	●
Health and Safety											
Reform codes of conduct for transport operators		●			●	●					
Set up health and safety standards for vehicles		●									
Consider loans or grants to transport companies to retrofit vehicles to improve health and safety		●			●	●					
Update safety standards for infrastructure		●	●	●							
Implement systems to monitor physical distancing		●	●		●						
Green Mobility											
Construct assets to support active travel		●	●	●	●	●					
Reapportion road space to cycling and pedestrians		●	●	●	●	●					

The Guide also suggests that measures to improve universal access, efficiency, safety and green mobility could also contribute to increased transport resilience to pandemics. It therefore provides guidance for planning departments at national, city and local government levels to consider longer-term measures to improve resilience to pandemics as part of sustainable transport plans.



[Read full report](#)

The impact of COVID-19 on Tanzanian transport sector and the economy

STUDY COUNTRIES: TANZANIA

FUTURE TARGET COUNTRIES: BENIN, BURUNDI, CONGO DEMOCRATIC REPUBLIC, DJIBOUTI, KENYA, MAURITANIA, NEPAL, RWANDA, SOUTH SUDAN AND UGANDA.

RESEARCH SUPPLIER: CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT (CILT) TANZANIA

AUTHORS: CILT TANZANIA

SUMMARY

In March 2020 the Tanzanian Government introduced transport and travel measures to mitigate the spread of COVID-19. As well as stifling transport movements within the country such measures restricted the movement of goods, services and people along the three international transport corridors that link neighbouring East African countries to the Tanzanian ports of Tanga, Dar es Salaam, and Mtwara.

Transport restrictions in Tanzania and its neighbouring countries reduced the level of transport services with consequent impacts on transit traffic, trade, and the economy. The Chartered Institute for Logistics and Transport (CILT, Tanzania), launched a study in March 2020 to assess these impacts.

CILT consulted a wide range of stakeholders – 67 people in transport ministries, road, rail, and port authorities, and representative transport operators participated in physical interviews in Tanzania. In addition, 333 CILT members from five countries – Malawi, Rwanda, Tanzania, Uganda, and Zambia responded to a CILT smart survey. A questionnaire addressed key transport economic indicators, changes in transport traffic movements, and logistics performance and economic indicators.

Analysis of data from these interviews and surveys were supported by two stakeholder focus group workshops. A literature review complemented this primary research methodology.

RESEARCH FINDINGS

The following were the key findings of this project:

- Fuel and transport costs increased resulting in reduced transport service capacity and transport employees;
- Passengers shunned travel on public and private transport with consequential increase in walking and cycling, and a demand for home deliveries;
- Road traffic, public and private vehicles, declined significantly as did the movement of goods vehicles limiting access to basic goods, workplaces and businesses;

- Daily maritime voyages at the ports of Dar es Salaam and Kigoma fell suddenly reducing the shipping services to Zanzibar, Pemba, and the Democratic Republic of Congo;
- Daily flights declined drastically at Mwalimu Nyerere International Airport, Kigoma Airstrip, Mbeya Airstrip, and Kilimanjaro Airport. Although flight reductions mitigated the import of COVID-19 cases, regional and international trade was interrupted;
- Daily train operations fell to less than 10 trains per day reducing access to regions largely dependent on rail services, particularly industries dependent on the movement of raw materials and semi-finished components.

The impact on the transport sector and the economy included the following:

- Disruptions to transport resulted in a decline in the number of shipments and less efficient logistics. In turn this reduced inventory turnover that saw warehouse storage costs increase.
- With reduced public and private transport services and COVID-19 restrictions, access to essential education and health declined, unemployment and business costs increased – all factors that impacted negatively on the Tanzanian economy.

RECOMMENDATIONS

The Government transport and travel measures to mitigate the spread of COVID-19 and the public's willingness to accept hand washing and self-isolation are important elements for dealing with a pandemic. But, in future, a multi-sectoral approach is necessary that involves public authorities, the private sector and people throughout the country. This calls for:

- The Ministries of Transport, Health, and Community Development, at central and local government levels, to coordinate their resources and to work together;
- The creation of systems to provide real-time data on pandemic mitigation and control that allows public authorities to design public awareness that benefit all;
- The Ministry of Transport boosts data collection and research to develop a national transport pandemic plan. To do so would be a valuable outcome of this study.



Africa’s response to COVID-19 and its impact on transport and mobility of people and goods. A review of policy and practice in seven African countries.

STUDY COUNTRIES: CAMEROON, KENYA, MOROCCO, MOZAMBIQUE, SENEGAL, TANZANIA AND UGANDA	FUTURE TARGET COUNTRIES: ETHIOPIA, GHANA, NIGERIA, RWANDA, TUNISIA, AND ZAMBIA
RESEARCH SUPPLIER: GLOBAL ALLIANCE OF NGOS FOR ROAD SAFETY & INTERNATIONAL ROAD FEDERATION (IRF)	AUTHORS: LOTTE BRONDUM, JULIA FUNK, CHRISTOPHER HITZ, PATRICK KINYANJUI, SUSANNA ZAMMATARO

SUMMARY

This report assesses the response to the COVID-19 pandemic in seven low- and lower middle-income countries in Africa (Cameroon, Kenya, Morocco, Mozambique, Senegal, Tanzania, Uganda) and the pandemic’s impact on transport and mobility of people and goods. It analyses specific COVID-19 response measures taken by these countries and how these measures are impacting mobility and transport policy, operations, and overall wellbeing of people and communities.

The work incorporates civil society and grassroots community perspectives to assess how the measures have impacted community access to transport services and mobility needs as individuals adapt to the new normal. Particular attention was assigned to physical distancing and capacity restrictions in formal and informal public transport.

RESEARCH FINDINGS

Understanding the context and dynamics in these seven African countries, by documenting and assessing responses and their impacts, provides a solid base from which to inform future economic, social, and environmental action in Africa and elsewhere. This analysis helps support the call for more sustainable mobility which encourages public transport, active mobility, and equitable access. Public spaces, land use, and transport systems must be built around people.

To ensure that the stimulus packages and massive investments that will be deployed in the short and medium term embrace this human-centric vision, this report supports arguments with clear, effective, and well-documented evidence.

To do so, an in-depth desk review of the responses in the targeted countries was conducted, a context-specific questionnaire was administered to relevant stakeholders to fill identified gaps, and interviews were held with key stakeholders, including lead road safety agencies, traffic police departments and public transport authorities to obtain further insights. Qualitative data to support the findings from the desk review and key informant interviews was collected through focus group discussions in each country.

The report addresses the COVID-19 measures implemented in the focus countries, providing background and insights into the transport-related restrictions such as those affecting international travel, public transport, and urban and inter-urban travel restrictions. The report assesses the impact of these measures on transport – specifically looking at the impact on individual mobility to various locations such as public transport stations, workplaces, and residential areas, prior to providing insights into the detailed qualitative findings derived from interviews and focus group discussions. Lastly, detailed case studies for all seven countries are put forward, prior to key findings and recommendations being presented.

In response to the COVID-19 pandemic, governments in the seven focus countries applied a wide range of measures spanning from restrictions on public gatherings, curfews, closures of establishments such as restaurants, as well as to significant restrictions on international and national travel and transport more generally. Once first cases were confirmed, all countries eventually imposed the highest level of restrictions for international travel, meaning that international incoming and outgoing flights were banned, and borders were closed.

However, the longevity of these measures varied significantly, as well as how countries chose to continue operating thereafter. Importantly, the severity of the restrictions did not always coincide with the rate of virus spread within the countries. Many countries reopened their borders despite rising case numbers for fear of the severe negative impacts on their economy.

Comparing mobility behaviour across all countries and locations between the first and second COVID-19 waves (wave one being defined as March to June 2020; wave two as September to December 2020) it can be observed that the reduction of mobility was generally much larger during the first wave than during the second. When comparing the seven countries, the findings exemplify how the restrictions and regulations put in place by government strongly impacted the extent to which mobility in the individual countries was reduced and shaped during the initial months of the pandemic.

A strong opinion from the community was, that although capacity restrictions and physical distancing caused some inconvenience, daily commuting and travel was generally more comfortable and safer due to reduction in the number of passengers. It was suggested that this, alongside other measures which made public transport more reliable, safe, and organised, should be integrated more permanently into the transport system.

The report findings constitute the emergent best practices, aggregated based on the data collected and analysed using both top-down and bottom-up approaches to policy formulation, implementation process and community behaviour in the seven countries. The report findings centre around the importance of:


- Creating a national taskforce;
- Integrating representatives of the informal transportation sector;
- Fostering dialogue and harmonising cross-border Standard Operating Procedures (SOPs);
- Enforcing and implementing a thorough monitoring and evaluation (M&E) process at all levels;
- Improving coordination within the transport sector;
- Encouraging a more rapid and effective development of user-friendly and safe transport infrastructure environments;
- Implementing stable pricing policies to maintain public transport affordable.

RECOMMENDATIONS

The report concludes by drawing out four key policy recommendations for transport stakeholders that can provide a way forward during the “new normal”, as well as to counteract any potential future waves of the current or future pandemics in low- and lower middle-income countries. These are:

- A holistic approach to policy formulation
- Investing in research and data
- Inclusion and community participation
- Strategic collaboration to create common ground and understanding.

[Read full report](#)



People in seven African countries felt strongly that, despite the inconvenience of social distancing and capacity restrictions, **daily commute and travel was generally more comfortable and safer** due to fewer passengers.

Economic impact and infection control measures of COVID-19 in the public transport sector in Nepal

STUDY COUNTRIES: NEPAL

FUTURE TARGET COUNTRIES: AFGHANISTAN, INDIA, PAKISTAN, BANGLADESH, SRI LANKA

RESEARCH SUPPLIER: NEPAL INSTITUTE FOR URBAN AND REGIONAL STUDIES (NIURS)

AUTHORS: DR. JAGADISH C. POKHAREL, KISHORE THAPA, DR. SAGAR PRASAI, DR. PRASTUTI SHARMA, DR. AJAY C. LAL, RANJAN BHATTA, RICHA DHUNGANA, ANKIT KARNA

SUMMARY

Nepal's transport providers experienced challenging economic circumstances following COVID-19 lockdown mobility restrictions. Many transport operators suffered financial losses and some now face business closure. This could limit transport availability once life resumes to normality in Nepal.

This project investigated the economic impact and infection control measures of COVID-19 on the public transport sector in Kathmandu Valley. The team surveyed vehicle owners, operators and passengers, sectoral experts, epidemiologists, government agencies, public vehicle associations and private sector vehicle operators.

RESEARCH FINDINGS

Major findings include:

- Fleet size of the public transport sector in Kathmandu is at around 55% of the pre-lockdown number;
- Reduced commuter demand and fleet size has resulted in reduced revenue for the public transport operators;
- In the transportation sector 315,000 people may have lost their job. Our study suggests that the sector may have shrunk in value by approximately 30%.

The findings have shaped recommendations for both government regulators and public transport operators. This will help Nepal's transport sector make evidence-based decisions and influence policy to support the survival of transport providers through and beyond the COVID-19 period.

RECOMMENDATIONS FOR GOVERNMENT REGULATIONS

- **Provide incentives to the public transport sector.** The research found that, depending on the vehicle type, about 15-55% of public transport vehicles are currently under-utilised. Small incentives such as deferring fees and taxes by six months, opening new routes or reducing taxes on diesel for a short period of time can potentially incentivise companies to re-enter the market by operating their unutilised vehicles thus maximising vehicle utilisation.

- **Create funds for operationalising the policies and guidelines.** The cost of complying with mandated practices such as sanitisation widely drives non-compliance amongst operators. Cost reimbursement will increase compliance markedly.
- **Create monitoring mechanisms to enforce government guidelines and directives.** The current enforcement mechanism to check compliance with government guidelines on infection control measures is grossly inadequate for a city of 3.5 million people. The Department of Transport Management (DoTM) says compliance monitoring should be conducted by a team of officials from the DoTM, Local Office of Transport Management and traffic police but only six inspectors were designated for this purpose for the entire Kathmandu Valley. If the enforcement becomes stronger by increasing the human resources dedicated to compliance checks it will bring about visible changes in the procedures (sanitising, distancing, ventilating, seating). This will improve public confidence with the safety measures and commuter demand will grow. This will help revive the sector faster.
- **Promote the type of vehicles that the public is willing to use.** Motorbike taxis (MBTs) are growing in popularity with demand almost doubling during the pandemic. This segment of the market has not been regulated or promoted by the government in any way. The government may not be able to accord "preferential" treatment to a particular vehicle type but temporary measures to promote the use of MBTs will reduce infection rates.
- **Create reliable database of public transport.** The researchers had to estimate fleet sizes of each of the five public transport types operating in Kathmandu (Bus, micro bus, tempo, taxi and motorcycle taxi). The report recommends that the government increases and sustains budgets to ensure this kind of data is ordinarily available from the regulators.

RECOMMENDATIONS FOR PUBLIC TRANSPORT OPERATORS

- **Instil public confidence of safety through compliance with the government guidelines.** Vehicle operators, not the government, drive perceptions of public safety. The vehicle operators have to do their part in instilling public confidence in the safety measures employed in the vehicles by following government guidelines i.e. sanitising the surfaces of vehicle, dispensing sanitisers to the passengers, putting up public notices in cabins, enforcing no entry without mask rules, etc. The fastest way of reviving fallen commuter demand is by increasing public confidence in the public transport sector.
- **Scale-up innovations when they are identified.** Both vehicle operators and passengers can take steps to enhance their safety such as tempo buses using plexiglass dividers between the driver's seat and the passenger cabin. Even when such measures are not epidemiologically proven to work, the optics matter. Such steps go a long way in building passenger and operator confidence in the system.
- **Prepare for re-opening.** The current slump in commuter demand is partially a function of some sectors of the economy staying closed. As the government prepares to open up additional activities, the transport entrepreneurs should prepare to deploy additional vehicles. If the supply-demand equation fails, overcrowding will follow, which will in turn erode public confidence in the transport system.

[Read full report](#)

The research confirmed that there was a **direct correlation** between **increased mobility** and **increase in spread of diseases** thus validating the policy measures that restricted mobility.



Tactical Transit Lanes in mitigating the impact of COVID-19 in cities in Sub-Saharan Africa

STUDY COUNTRIES: SOUTH AFRICA, KENYA, UGANDA	FUTURE TARGET COUNTRIES: ALL LOW- AND MIDDLE-INCOME COUNTRIES
RESEARCH SUPPLIER: RAHUL JOBANPUTRA	AUTHORS: R JOBANPUTRA, G JENNINGS, C CAP, G ANKUNDA, S MUGUME

SUMMARY

In keeping with accepted worldwide guidelines, Sub Saharan African (SSA) cities reduced public and paratransit transport services drastically during the COVID-19 pandemic. This meant commuters had to face using crowded services, subjecting themselves to increased risk of contracting the virus, long waits, or walking to get to work.

This project investigated the potential benefits of Tactical Transit Lanes (TTLs) – temporary improvements to public transport systems- in cities in SSA. Using global lessons learnt and challenges from already implemented projects, the aim was primarily to mitigate the potential impact of COVID-19 by providing additional capacity, and also to demonstrate that proposals could have value as part of a long-term strategy for public transport services.

TTLs can be set up quickly at very little cost and use materials, such as cones, plastic barriers or benches and even recycled materials. This makes them easily adaptable, requires little in the way of new infrastructure and causes minimal disruption on existing traffic or the environment.

The researchers reviewed examples of TTLs recently implemented worldwide, and from these developed proposals for TTLs in Cape Town, Nairobi and Kampala. They found that TTLs could save time and fuel for operators, increase passenger throughput, and save time for commuters with associated financial gains. The proposals, if implemented would therefore have value beyond the immediate COVID-19 response in terms of providing a higher capacity, more efficient car-competitive public transport services at a low cost.

RESEARCH FINDINGS

The findings for proposal in Nairobi were:

- For a 11km TTL on Mombasa Road/Uhuru Highway, operators could save an average of 30 minutes per trip, potentially this could equate to over \$401,500 per annum in fuel costs; and cumulatively, commuters would benefit from a value of time saving of around \$502,780 per month or over \$6 million per annum (average low-mid salary based);

- For a 5km TTL on Jogoo Road, operators could save an average of around 20 minutes per trip which could equate to \$150,500 per annum in fuel costs; and cumulatively, commuters would benefit from a value of time saving of \$578,035 per month or nearly \$7 million per annum (average low-mid salary based); and
- For a 2km TTL on Ngong/Haile Selassie, operators could save an average of around 10 minutes per trip which could equate to \$22,890 per annum in fuel costs; and cumulatively, commuters would benefit from a value of time saving of \$102,667 per month or over \$1 million per annum (average low-mid salary based).

Similar benefits were noted in Kampala and Cape Town. Benefits were less pronounced in Cape Town because people use public transport less.

A high-level review of prevailing statutes, policies, and local by-laws showed that there is little or no policy guidance or requirements for temporary infrastructure interventions in SSA LICs. Experience in Cape Town suggests that overly bureaucratic approaches stifle infrastructure innovation and trials such as TTLs. Conversely, experience from the Global North shows that activism and political partnership has worked well to implement many projects in a matter of weeks.

RECOMMENDATIONS

The TTL proposals clearly have potential to save time and cost for operators and passengers alike. The next step is to use the results of this research to encourage officials to implement pilots to validate and evaluate the benefits in real life.

In addition, light touch policy guidance on TTL implementation needs to be developed. Assuming the necessary political support, pilots once tested and refined, should lead to more permanent adoption of TTLs. This would have the dual benefit of keeping people safer during pandemics and driving economic improvements in the longer term.

Ultimately, TTLs can contribute to a better transport system that is more carbon-neutral and a society that will become more resilient to future pandemics or shocks.

Read full report

Legislative and Regulatory Risk Management for Mass Transportation Providers in Low-income Countries to Mitigate the Financial Effect of COVID-19

STUDY COUNTRIES: GHANA

FUTURE TARGET COUNTRIES: THE GAMBIA, SIERRA LEONE, LIBERIA, NIGERIA, SOUTH SUDAN, UGANDA, RWANDA, TANZANIA, ZAMBIA AND MALAWI

RESEARCH SUPPLIER: MICHAEL GLEESON

AUTHORS: MICHAEL GLEESON

SUMMARY

Transport Operators across the world face being sued due to passengers catching COVID-19 on their vehicles. HICs have implemented legislation to protect transport service providers and the operators have taken on some of the financial risks themselves. However, there is a need for legislative measures in LICs to protect the public and private providers of transport.

This guidance document and case study examines the financial risks that the COVID-19 pandemic poses from a legal perspective to the mass transportation systems in eleven LICs in Africa. It identifies how those potential future financial losses may be mitigated by proactively refining relevant legal and regulatory regimes.

WHY THE GUIDE IS NEEDED

This guidance document will help LICs protect and preserve the financial wellbeing of their mass and paratransit transportation systems from the seismic economic shocks that could affect them as a result of the COVID-19 pandemic.

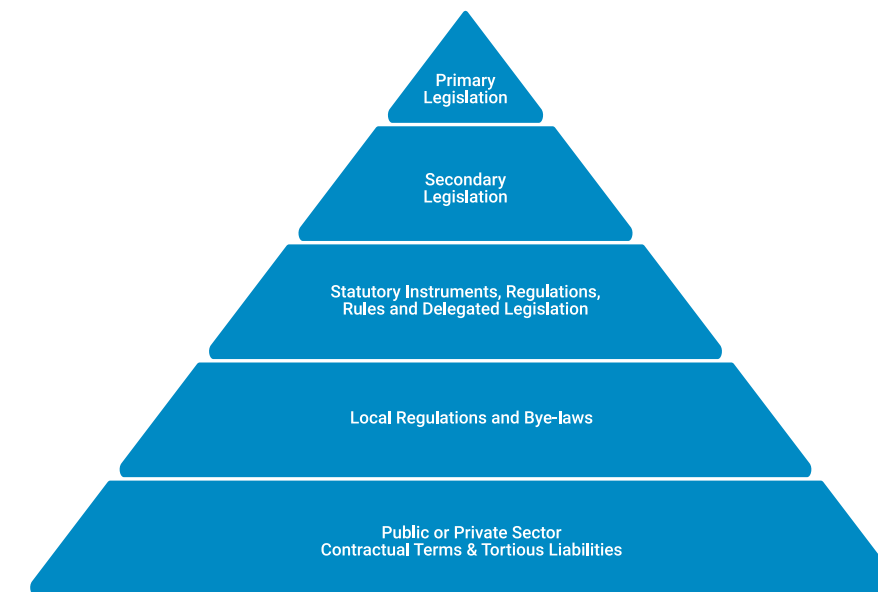
WHO THE GUIDE IS FOR

The guidance is designed to be used by ministers and public officials within transport ministries in LICs. It draws upon insights from African countries that follow a legislative system like that of the United Kingdom so will be especially relevant to similar jurisdictions.

HOW THE GUIDE WORKS

The guidance takes lessons from HICs and highlights the proactive approach and measures taken to adapt the legal and regulatory system at times of crisis. Examples are provided from different sectors to illustrate that in HICs, the legal and regulatory system is dynamic rather than passive.

Change can be made in different legislative areas, including contracts, local regulations and bye-laws, regulations, secondary and primary legislation - as illustrated below.



Hierarchy of types of laws and regulations

Recent COVID-19 examples include:

- The Coronavirus Act 2020. Royal Assent 25th March 2020 plus other Primary and Secondary [Legislation](#). A summary of the main Act has been produced by [The Institute for Government](#). This Act provided (amongst other things) indemnities to the National Health Service (NHS) and pharmacies carrying out work for the NHS in respect of claims made against those organisations in relation to COVID-19. (UK)
- Corporate Insolvency and Governance Act 2020. Royal Assent 25th June 2020. In respect of the current COVID-19 outbreak, the UK government has amended the Insolvency Rules to provide a new restructuring route for saving large businesses and a moratorium on creditor action that risks putting companies into liquidation. (UK)
- 3rd April 2020 – UK Government issued indemnities to manufacturers of ventilators in case of legal claims relating to intellectual property infringement or product liability claims such as death or personal injury to a patient and patient loss of earnings, caused by defective machines. (UK)

The guidance document also contains a case study from Ghana which examines the areas where legislation should be introduced to protect each different transport sector in the country. This covers legal issues such as indemnity regimes, passenger terms and conditions, employment contracts, public liability and consumer protection legislation.

[Read full report](#)

Modelling the links between transport, air quality and COVID-19 spread in Dhaka and Bangladesh

STUDY COUNTRIES: BANGLADESH

FUTURE TARGET COUNTRIES: N/A

RESEARCH SUPPLIER: UNIVERSITY OF LEEDS

AUTHORS: ZIA WADUD, SHEIKH MOKHLESUR RAHMAN, ANNESHA ENAM

SUMMARY

Transport plays a large part in spreading contagious diseases like COVID-19. This project aimed to understand the differential contribution of various COVID-19 related policies to the spread of the disease. It also investigated the impacts of these policies on transport related outcomes such as traffic/mobility, accidents, and air quality.

The project involved regression analysis of daily new positive cases in Bangladesh (and Dhaka separately) and revealed that many of the interventions reduced the spread of the pandemic.

RESEARCH FINDINGS

To meet the project objectives, data on mobility, accidents, air quality and the spread of the disease were collected from various sources, public and private. Data on infections, traffic and mobility parameters and accidents were collected nationally and for Dhaka city. Air quality data were collected from three locations in Dhaka City only.

As in many low-income countries, data quality was a cause for concern, particularly some of the regional data on infections. Therefore, only national level data were used to represent infections. Data visualization, statistical and time-series econometric regression modelling techniques were then applied to arrive at the relevant conclusions, described below:

Effects of COVID-19 related policies on the spread of the pandemic

The project found that many of the policies introduced to combat COVID-19 reduced its spread. The largest beneficial impact came from the full closure of offices and public transport. The closure of shops initially had a similar effect, around 70% of the combined effects of full closure. Statistically, half capacity operation did not have any beneficial impact, possibly because of lax implementation, as buses started to run at full capacity.

Opening garment factories earlier than other offices did not have a significant adverse effect, nor did compulsory mask use, possibly because of a decline in the pandemic's severity, lax mask-use, and

increased mobility, potentially indicating some risk compensation effect of mask mandate. Eid-ul-Fitr increased the spread, due to increased social interactions during the festivities. Policy effects are observed about ten days after implementation, more quickly than in some developed countries, possibly due to higher population density in Bangladesh.

Effects of COVID-19 related policies and interventions on mobility

Daily activities and mobility were dramatically reduced during the disruption caused by COVID-19 but mobility started to recover gradually, returning to near-normal just before September 2020. Regression analysis shows some differences between locations. Closure of education institutions, offices, public transport, and shopping malls all reduced mobility at most locations.

The closure of garment factories reduced mobility for work and at transit stations only. Offices opening at half capacity had a significant effect on office travel, but not at other locations. When mobility at other locations fell, staying at home increased substantially and vice versa. After mask use was made mandatory, mobility was increased everywhere, hinting at risk-compensating behaviour.

Effects of mobility on COVID-19 spread

Many policy interventions reduced mobility, directly affecting the spread in Bangladesh. The number of daily cases showed a positive association with grocery, transit, and retail related mobility, indicating that an increase in mobility led to an increase in infections. As expected, infections decreased when more people stayed at home.

Effects of COVID-19 related policies on road accidents

Road accidents and related fatalities may appear to have fallen in Bangladesh during a five-month travel disruption period (April – August 2020) compared to a longer 19-month normal period (January 2019 – December 2020, barring the disruption), however, statistically, accidents and fatalities did not fall. This is because of variability in monthly accidents.

More importantly, once the effects of the reduction in mobility were used to normalize accident and fatality statistics, it was found that these actually increased during the travel disruptions, probably due to increased speed resulting from reduced traffic on the road. However, in Dhaka normalized accidents and fatalities fell and roads became safer. This was likely due to fewer pedestrians and vulnerable road users as well as less aggressive competition among bus companies.

This result suggests: a) road safety impacts are location specific; b) there should be adequate policy attention on road safety even during reduced mobility periods, especially outside Dhaka; c) safer travel options for vulnerable road users are key to improving road safety; and d) not controlling for reduced mobility presents a misleading picture during data analysis.


Effects of COVID-19 related policies on improvement of air quality

Improvements in air quality due to reduced traffic are location specific. Statistically, air quality improved at Farmgate, Dhaka, probably due to less construction pollution and fewer buses at this major transport hub. At Baridhara, Dhaka, air quality improved immediately in the first month, but not over the five months of traffic disruptions. It did not improve at Darussalam Road in Dhaka at any time. All these results controlled for changes in weather over the year. Results indicate: – a) air quality impacts and associated health benefits are location specific; b) traffic may not be as significant a source of air pollution in Dhaka as previously thought; and c) not controlling for weather results in faulty conclusions.

RECOMMENDATIONS

- The outcomes of the project are useful in understanding the impacts of different policy measures on transport, accidents, air quality and COVID-19 spread. Their relative effectiveness can be used for future intervention design. However, it should be noted that results are dependent on the quality of the underlying data and on how well that policy is implemented or enforced.
- Keeping offices and public transport operational at half capacity did not have any discernible effect in on curbing the spread of the disease. Full closure measures should be prioritised.
- Educating and communicating with the public and monitoring and enforcement are essential for the interventions to work.
- Good, transparent data is essential for appropriate evidence-based decision-making and developing a system to gather such information will be very useful for mitigating future pandemics.

[Read full report](#)



In **Bangladesh**, keeping **offices and public transport** operational at **half capacity** did not have any **discernible effect** on curbing the **spread of the disease**.

Accelerating COVID-19 related ‘best practice’ in the urban motorcycle taxi sector in sub-Saharan Africa

STUDY COUNTRIES: GHANA, KENYA, LIBERIA, SIERRA LEONE, TANZANIA AND UGANDA

FUTURE TARGET COUNTRIES: SUB-SAHARAN AFRICA

RESEARCH SUPPLIER: SWANSEA UNIVERSITY

AUTHORS: K PETERS, J JENKINS, J VINCENT, R SANTOS, T JOHNSON, S NTRAMAH, M MUGISHA, P OPIYO, P HAYOMBE, & R CHETTO

SUMMARY

This report provides insight on the impact of the COVID-19 outbreak on the urban motorcycle taxi sector in sub-Saharan Africa. Urban motorcycle taxi operators in sub-Saharan Africa provide essential transport services, and in many cases have shown ingenuity and an ability to adapt and innovate, when responding to different (health) challenges.

However, policymakers and regulators – according to this report’s observations and supported by the literature – often remain somewhat hostile to the motorcycle taxi sector. The report discusses the measures and restrictions put in place to reduce the spread of COVID-19 relevant to this sector, and explores motorcycle taxi operators’ perceptions of the acceptability of these restrictions and the extent to which they feel their sector has adapted and adhered to them.

For this report, primary data were collected in six countries – three in West Africa (Sierra Leone, Liberia and Ghana) and three in East Africa (Uganda, Kenya and Tanzania). A mixed methods approach was used, conducting qualitative interviews with key stakeholders/informants relevant to the urban motorcycle taxi sector, while short surveys (approximately 60 per country) were conducted with the motorcycle taxi operators.

Country and regional findings were presented to and discussed among the researchers, motorcycle taxi operators and key stakeholders in a series of (online) workshops. Disaggregated and aggregated reports and an aggregated policy brief were produced based on the data and workshops, which were made available to the participants before being posted on a [website](#) created by the researchers to disseminate the findings and make inter-city and inter-regional peer-to-peer learning possible.

As background, the following should be acknowledged:

- Most case study countries recorded relatively few COVID-19 cases and reported only a limited number of COVID-19 deaths. By the end of 2020, no case study country had yet experienced a clear ‘second wave’;

- All countries responded to the pandemic with a series of measures and restrictions, including (partial) lockdowns, curfews, closure of schools, offices and shops, etc. However, the duration and severity of the measures varied significantly from country to country, with Uganda having one of the strictest sets of regulations while Tanzania had one of the most relaxed sets of regulations;
- Governments also responded with a series of restrictions and measures specifically for the public transport sector, such as physical distancing, restricting number of passengers, bans on travelling and/or restricting non-essential travel, and prescribing the use of hand sanitiser and face masks.

RESEARCH FINDINGS

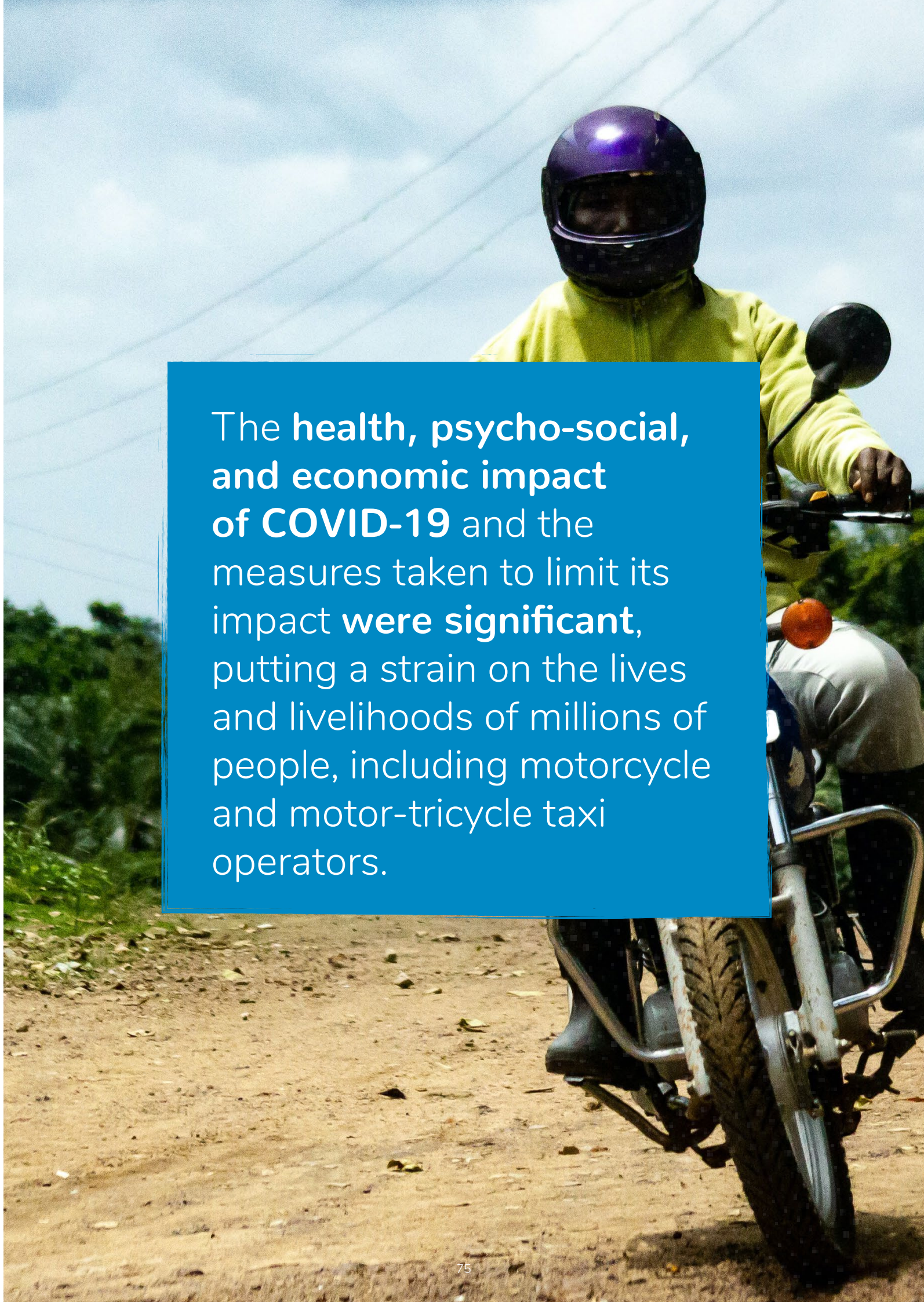
- The health, psycho-social, and economic impact of COVID-19 and the measures taken to limit its impact were significant, putting a strain on the lives and livelihoods of millions of people, including motorcycle and motor-tricycle taxi operators.
- In most cases measures were formulated in a non-consultative manner, although in Sierra Leone the government did consult the transport sector, including motorcycle taxi unions.
- Motorcycle taxi operators in general indicated that COVID-19 had a negative impact on their livelihood activities, due to direct restrictions and reduced demand, but some reported an increase in activity due to this means of transport’s ability to bypass police and army controls.
- There were varied degrees of compliance with COVID-19 restrictions over-time, ranging from high levels of compliance in the initial phases to limited/more symbolic compliance later on.
- Limited or non-compliance was often due to necessity (to have some income) rather than an unwillingness to abide by the rules.
- Innovations by the motorcycle taxi operators were mostly limited, and mainly restricted to simply attaching a bottle of hand-sanitiser to the motorcycle or spraying the inside of passenger helmets with disinfectants



RECOMMENDATIONS

- The violation of transport restrictions by motorcycle/tricycle taxi operators was mainly caused by necessity, due to lost livelihoods and limited capacity to absorb financial shocks. Providing a financial safety-net for motorcycle/tricycle taxi operators would result in higher compliance with COVID-19 measures.
- The formulation of COVID-19 restrictions by the governments were generally done without proper consultation of the motorcycle/tricycle taxi sector. More engagement with the sector and its representatives during normal times would have allowed for rapid inclusion of the sector's perspectives in times of an (health) emergency.
- Communication of COVID-19 restrictions by the governments to the motorcycle/tricycle taxi operators was not always sufficiently clear. Closer collaboration with the motorcycle/tricycle taxi unions and further use of a wide range of media and social media means would have reduced confusion over the COVID-19 regulations and restrictions.
- Motorcycle/tricycle taxi unions are considered to be the most trusted institutions by the operators. Hence, further collaboration between these institutions and the police, army, Ministries of Health and Government more generally, would result in better compliance with the COVID-19 rules and regulations.
- The use of mobile phone and internet technology by motorcycle/tricycle taxi operators and passengers increased during the COVID-19 period. The Government should support this further as there are a number of benefits to this which are not limited to periods of health emergencies. Mobile payments to facilitate access to micro-credit loans for operators and ride hailing apps allowing for safety monitoring are just two examples.

[Read full report](#)



The health, psycho-social, and economic impact of COVID-19 and the measures taken to limit its impact **were significant**, putting a strain on the lives and livelihoods of millions of people, including motorcycle and motor-tricycle taxi operators.



A survey of innovative road transport solutions in Nigeria in response to Covid-19 pandemic

STUDY COUNTRIES: NIGERIA	FUTURE TARGET COUNTRIES: THE GAMBIA AND GHANA
RESEARCH SUPPLIER: IKEOHA FOUNDATION	AUTHORS: DR NWACHUKWU MAXWELL UMUNNA, OBIORA OBASI AND DR. DONALD CHIUBA OKEKE

SUMMARY

Nigeria relies almost entirely on road transport, which accounts for over 95% of freight and passenger movements. During the pandemic, the overarching COVID-19 challenge for the transport sector has been how to ensure the safety of the workforce, drivers, workers and transport users, and at the same time, keeping supply chains and mobility networks operational. This study examined how road transport operators in Nigeria have coped with (or responded to) Covid-19 challenges, with a particular emphasis on innovative solutions, as well as how lessons learned can be used for future programmes.

The study employed a mixed-method involving both qualitative and quantitative research to generate primary data. The qualitative method examined diverse opinions and views of stakeholders in the road transport industry in Nigeria. In addition, it examined technologies, processes and procedures that have been employed in responding to Covid-19.

RESEARCH FINDINGS

The results show that road transport operators perceive their responses to the Covid-19 pandemic in Nigeria as 90.7% effective in keeping themselves and passengers safe.

A breakdown of the response by road transport operators shows that they consider the lockdown directive to be the most effective (20%) response to the Covid-19 pandemic in Nigeria. It was followed in descending order by Covid-19 safety protocols (12.6%), environmental sanitation (9.8%), promotion of hygiene (8%), information technology (7.8%), face masks (7.3%) and physical distancing (6.6%). Others are public enlightenment (6.2%), palliative support (5.1%), inclusiveness (4.1%) and mass media (3.4%).

The pandemic and the response measures invigorated transport operators to explore new opportunities for development in Nigeria’s road transport sector. These opportunities, in descending order, are: developing a new business model, (20.4%), modernisation of road transport system (18.6%), application of information technology (15%), revitalisation of road transport infrastructure (13.5%) and development of a sustainable work model (12.1%).

The Covid-19 pandemic provided public health rationale and enhanced awareness of the need to enforce safety protocols in the formal and informal public road transport sector. The Principal Component Analysis results show trends towards actions that may influence transition to low-carbon and cleaner transport systems in Nigeria. These include: adopting green transportation (17.3%), investment in green energy infrastructure (10.7%), and increased adoption of other climate change mitigation measures (13.8%).

In addition, the results indicate that road transport operators in Nigeria emphasised inclusiveness in their operations during this pandemic especially in the areas of accessibility to transport facilities (13.5%) and provision of special facilities for vulnerable groups (11.4%).

RECOMMENDATIONS

- Stakeholders should apply measures that have been shown to work;
- Government should consult more with transport operators in formulating its pandemic response. If this is done, transport policies and pandemic emergency measures are likely to be more equitable and inclusive particularly for persons with disabilities;
- Lessons learned from existing transport systems designed for emergencies and essential services should be considered when planning for future pandemics.

Read full report

Post COVID-19 Mobility: Key levers to reform urban transport systems

STUDY COUNTRIES: INDIA

FUTURE TARGET COUNTRIES: BANGLADESH, ETHIOPIA, KENYA AND TANZANIA

RESEARCH SUPPLIER: RUTUL JOSHI

AUTHORS: RUTUL JOSHI, SONAL SHAH, PRANJALI DESHPANDE, PRASANTH N, VISHNU M J

SUMMARY

This pandemic has been a life-altering event for many, and it compels us to go back and re-think urban priorities. Some cities have managed their urban transport crisis with more resilience, and there is a lot to learn from them. Some cities have converted the challenges to building their systems better.

Some cities have been making the right choices for the last two decades, and with resilient systems, they have been able to bounce back quickly. Based on the case studies of many such cities, this strategic guidance document provides ways of moving ahead with the urban mobility reforms to build more resilient systems in the future.

The document is organised around three modes – walking and cycling, bus-based public transport, and intermediate public transport. For the modes, the document details how to ‘get it right’ – developing and investing in a system, resolving institutional issues, and building the right kind of infrastructure.

RESEARCH FINDINGS

Walking and cycling – Walking and cycling are the most fundamental, sustainable modes that need to find dignified space and permanent infrastructure in our cities. This would require an urban leader in the ULB (Urban Local Body) or the City Government to champion the cause – a cycling commissioner supported by a dedicated team and an adequate budget per year. This team is further supported by a city-level NMT (Non-Motorised Transport) committee coordinating with other agencies and providing organisational support to all the activities.

A critical job of this team is to understand and expand the demand for walking and cycling. Demand/ interest generation events and some bold pilot projects can showcase the city’s commitment to these sustainable modes. Finally, capacity-building programmes for the municipal, traffic police, and other government staff would go a long way in building a resilient system that delivers quality walking and cycling infrastructure.

Bus-based Public Transport – Bus-based public transport in any city is an essential component of the urban transport system. Buses are genuinely a ‘mass transit’ given how easily they can cover the entire city, with greater flexibility of operations/routing based on the demand. During and after the pandemic, more buses are required to maintain the physical distance between the commuters and continue to provide a safe mode of transport with greater frequency. Indian cities require systematic investment plans in bus-based public transport to modernise the existing fleet and maintain and upgrade them with a long-term vision.

For the effective and continued investment in the bus-based public transport, a robust institution of public transport authority is required which can plan, coordinate, implement and invest in this system. Finally, a robust bus-based public transport authority makes all its policy around the motto of ‘commuters come first’. It is observed in this research that the cities which have systematically invested in buses, learned from their past failures, created strong institutions for efficient bus operations are the ones that have better resilience.

Informal public transport – Informal public transport (IPT) is a shared mode of transport, and thus, it is imperative to treat them as a sustainable mode rather than seeing them as a nuisance. IPT is also a crucial mode to provide last-mile connectivity for the high-capacity mass transit systems. Indian cities need institutional and regulatory reforms to integrate IPT with their existing public transport system. As strategic guidance, a mobility department within the urban local body is envisioned coordinating all urban transport service providers in the city.

They can regulate the IPT services, understand the demand and make strategic interventions for better coordination. Here, modernisation of the IPT fleet or electrification scheme can nudge the institutional reforms in the right direction. If IPT is treated as legitimate transport service providers integrated with a larger urban system, it will lead to the IPT services being safe, hygienic, and beneficial to the city.

Finally, a city’s transport needs to be viewed and designed as “one” integrated system – a system that is planned for future travel demand, with supply coming from various modes like public transport, IPT, walking, and cycling. This would mean designing a system to enable people to reach where they need to go; the result is an accessible city. A city that invests in a robust transport system is not only accessible for all, but it is also a prosperous city, a liveable city.

WHY THE GUIDE IS NEEDED

This research has identified the key levers that have driven reforms, and innovative and sustainable transport solutions across cities of varying income classifications. These levers have helped cities move forward with better resilience – they had built stronger systems to cope with a crisis. The key levers could be manifested in the form of organisational set-ups or capacities, institutional resilience, specific reforms or initiatives, financing mechanisms or planning methods and tools and the ecosystem that allowed for such initiatives to be taken.

It involves diving deep into the public systems approach of working through constant adjustments, outcome-oriented planning and actions by multiple actors such as the policy makers, transport service providers, local community organisations, commuters and citizens. This conceptual approach uses filters of pragmatism and contextual relevance to bring forward policy responses from elsewhere while building on responses from cities in LICs.

WHO THE GUIDE IS FOR

This document is primarily meant for policy-makers, law-makers, mission directors and other officials in urban local bodies. Nonetheless, the language is aimed at eliminating jargon to improve its readability and accessibility for all those interested.

It is a guide for developing an integrated urban transport system, with lessons from cities that have managed to adapt to a crisis like the COVID-19 pandemic.

HOW THE GUIDE WORKS

It gives practical solutions for persuasive changes in public behaviour to switch to more sustainable transport options. Below is an example of steps for encouraging walking and cycling.


ORGANISE DEMAND GENERATION EVENTS ON A REGULAR BASIS

Regular open streets and car-free day events enable positive behavioural changes in residents, create a common civic culture and find new uses for public spaces.

The following steps may be taken to plan them:

- Appoint a dedicated person from the Walking and Cycling team to organise car-free days and open streets. The staff will coordinate with the traffic police, collaborate with civil society organisations and educational institutions to organise volunteers;
- Organise car-free days regularly to generate demand for walking and cycling and build support for the implementation of pilot projects. These events can be initiated at the neighbourhood scale with the aim of extending them to the entire city eventually;
- Showcase the impact of walking and cycling regularly on health;
- Focus on increasing participation by women and girls by providing cycles and teaching them how to repair and ride cycles;
- The Walking and Cycling Commissioner will encourage participation by political and administrative leadership. Additionally, government employees should be encouraged to walk, cycle or use public transport to travel to work at least once a week.

[Read full report](#)



The research confirmed that there was a **direct correlation** between **increased mobility** and **increase in spread of diseases** thus validating the policy measures that restricted mobility.



Learning from COVID-19 pop-up bicycle infrastructure: an investigation into flexible and user-led bicycle planning in Cape Town, Nairobi, and Kampala

STUDY COUNTRIES: UNITED KINGDOM, SOUTH AFRICA, KENYA, UGANDA	FUTURE TARGET COUNTRIES: LESOTHO, MALAWI, RWANDA, TANZANIA, ZAMBIA AND ZIMBABWE
RESEARCH SUPPLIER: RAHUL JOBANPUTRA	AUTHORS: GAIL JENNINGS, RAHUL JOBANPUTRA, CONSTANT CAP, GENEVIVIE ANKUNDA, SEITH MUGUME

SUMMARY

Many sub-Saharan African (SSA) cities reduced public and paratransit transport services drastically during the COVID-19 pandemic. This increased fares at a time when incomes were in decline. As a result, walking and cycling became more dominant forms of transport.

This study examined the opportunity for pop-up bicycle infrastructure during the pandemic in three cities – Cape Town, Nairobi and Kampala. It found that permanent, segregated bicycle lanes have become contested interventions in resource-poor cities, and their legitimacy is questioned because of the low numbers of cyclists.

At the same time, pop-up bike lanes have low user acceptance in terms of road safety and are poorly enforced. Yet pop-up cycling lanes could offer value beyond the pandemic as pilots that could pave the way for more permanent and acceptable solutions to meet sustainable transport goals.

RESEARCH FINDINGS

Approaches to bicycling infrastructure planning varies. Cities with a less established cycling policy environment, such as Nairobi and Kampala, are less set in their approach and are more likely to test changes before resources are committed to projects. Cities with established bicycle master planning like Cape Town offer a less enabling environment with a plethora of paperwork limiting agility and openness to change.

Many people in SSA cities walk and cycle because they have to – not because they choose to for health reasons as in many EU countries. It is easier and more cost effective to persuade existing sports or recreational cyclists and those with a keenness to ride to use bike lanes than attracting completely new riders. The imperatives for cycling in African cities are based on mitigating congestion or alleviating poverty, where people cycle to save on unaffordable public transport fares.

Bicycle route planning is best when cyclist-centric. Most cyclists take the direct route for their commutes (often more than 15km one way) even if the road is busy and does not have the space for bicycles. Attempts to divert cyclists from their preferred routes are rarely successful - and expensive. Nor is it necessarily worthwhile to build a bike lane as part of new Bus Rapid Transport (BRT) services currently under consideration in Nairobi, Kampala and other cities. To build new permanent infrastructure politicians need to be convinced of the value – especially when resources are constrained.

Pop-up bike lanes offer an opportunity to learn and demonstrate the value of cycling. Temporary infrastructure measures are quicker, and cheaper to implement. They can be trialled and quickly re-allocated or moved if they have unintended adverse impacts or could be better implemented elsewhere. However, due to safety concerns from lack of enforcement of poor driving behaviour, current infrastructure-lite lanes (such as painted lanes) are not used as much as they could be.

Agile regulation during emergencies is a double-edge sword. Emergency regulation has played a key role in the ability of cities to install infrastructure quickly. But it has also given birth to backlashes against ‘control’ by governments of citizens, and the abrogation of rights. This is a delicate path to be negotiated.

RECOMMENDATIONS

Trialling user-proposed routes with light-touch infrastructure, using context-specific planning principles together with local stakeholders, may give decision-makers confidence to develop accepted routes.

This will avoid delegitimising bicycle travel through backtracking, and limit the rhetoric around unused facilities or mis-directed resources. In addition, whilst design guidelines exist in South Africa and Uganda for shared facilities, there is no such guidance for temporary barriers or separation. This report recommends that such guidance is developed.

Read full report

How exposed have transport workforces been to COVID-19 and what solutions are available to reduce risk and exposure?

STUDY COUNTRIES: TANZANIA

FUTURE TARGET COUNTRIES: BENIN, BURUNDI, CONGO DEMOCRATIC REPUBLIC, DJIBOUTI, MAURITANIA, NEPAL, RWANDA, UGANDA

RESEARCH SUPPLIER: HUDUMAPLUS

AUTHORS: CYPRIAN MOSES, JEFF TURNER

SUMMARY

Transport workers the world over were frequently in the front-line during the pandemic, needing to maintain vital food and material supply chains but also affected by decisions to restrict every day movements through the restriction of public transport.

In March 2020, the Government of Tanzania imposed significant public health measures to address the COVID-19 pandemic, similar to many countries in the region and globally, and whilst public transport was severely constrained, freight transport continued to operate to allow vital supply chains to be maintained.

However, in May 2020 the Government declared that COVID-19 was no longer present in the country, much earlier than many other countries. Despite this, the effects of the COVID-19 pandemic remain in Tanzania, as elsewhere across the world.

This study explores the nature of public health measures put in place by freight and passenger transport operators across Tanzania to protect its workforce and customers and how these have changed in line with government decisions regarding the management of the pandemic.

RESEARCH FINDINGS

The study found that there was a significant level of implementation of public health measures and use of Personal Protection Equipment (PPE) across the Tanzanian transport sector at the outset of the implementation of public health measures in March until May 2020.

The most regular measures reported on included physical distancing (74% reported it present in their organisations); 'No Handshake' policies (reported by 70%); regular temperature checks (reported by 68%) hand washing (reported by 64% of respondents) and public sensitisation (reported by 60%). The decision by the Tanzanian Government to lift the COVID19-related restrictions in May 2020 substantially reduced the maintenance of the public health measures across the sector.

At this point, everyday life returned to normal including schools, and the implementation of public health measures decreased substantially. In fact, only 16% of respondents reported that the No Handshake practices had prevailed beyond May 2020; only 19% reported handwashing procedures in place beyond May 2020; 22% reported public sensitisation still prevalent and 13% reported the encouragement of physical distancing practices.

The study also sought to explore the use of a range of PPE (such as gloves, masks, hand-sanitiser and face-shields) amongst transport operational workforce to mitigate the risk from COVID-19. 64% of the respondents indicated that they had used some form of PPE during the period from March to May 2020 and that 29% were still using them beyond that period. In addition, respondents, displayed significant confidence in the effectiveness of PPE to mitigate the risks from COVID-19 with 87%, on average, reporting confidence in the use of PPE.

Focus groups held with operational public transport staff, as opposed to operations managers and supervisors captured in the online survey, also reported similar findings to the quantitative. In particular, the groups reported an even more significant reduction of using COVID-19 public health prevention mechanisms post May 2020 than observed in the private transport sector.

In addition, as a result of the Tanzanian Government's focus on promoting the use of traditional herbal as alternative therapies to deal with COVID-19 and not PPE post May 2020, a significant proportion of public transport workforce were reported as starting to adopt traditional methods instead of the use of PPE.

Furthermore, the number of people using PPE- both workers and users - reduced after May 2020. The findings show that the potential risk from COVID-19 for the public transport workforce increased substantially post May 2020 as there was a significant reduction in the use of personal protection measures such as mask wearing and hand-washing by both workers and public transport users.


Whilst there was a similar rise in risk for private sector transport workers, the maintenance of at least a residual level of public health measure amongst private sector freight transport organisations was higher than that reported for public transport operators.



RECOMMENDATIONS

There is a need to manage the delivery of effective public health measures and its impact on the transport sector whilst at the same time planning for the recovery of the transport sector alongside the wider economy. This study highlights a number of recommendations from the research.

- Authorities, stakeholders, and the public must devise measures to mitigate the impacts of the COVID-19 virus spreading in public transportation systems, whilst at the same time maintaining the functionality of the transport systems as a key infrastructure for the economy, access to healthcare, education, place of work, or to purchase food and other essential goods. There are some clear messages that need to be developed and shared. This can be supported by:
- Ensuring that there is a consistent understanding across Tanzanian public transport operators of the issues affecting public health, particularly Covid-19 and a shared understanding of the duty of care and level of responsibility towards employees and contract staff so that there is consistency, particularly amongst smaller-scale transport operators;
- Reassuring transport workers about access to sanitation and healthcare equipment and their right to ask for such equipment;
- Developing a 'think responsibly' culture towards public health measures and the use of PPE incorporating education, knowledge sharing and consistent approaches;
- Linked to the above there is a need to generate a solid approach to both physical PPE provision and also clear operational protocols.



The potential risk from **COVID-19** for the **public transport workforce** in Tanzania **increased substantially** post May 2020 as there was a **significant reduction** in the use of **personal protection measures** such as mask wearing and hand-washing by both workers and public transport users.



WHAT NEEDS TO HAPPEN NEXT?

WHAT NEEDS TO HAPPEN NEXT?

The High Volume Transport (HVT) supported research activities showed the broad spectrum of impacts of COVID-19 on the transport system and the people relying on the goods and services delivered by the sector.

The work showed the opportunities but also the need for all stakeholders in the transport ecosystem to act to reduce the risk of spreading the virus as well as to minimise the impact to the economy and all individuals meeting daily needs by providing access to food, education, health systems and jobs.

As of December 2021, when this booklet was launched, there is no serious projection as to when COVID-19 might transition from a major to a minor threat for the global community, particularly for those living in LMICs with limited access to the vaccine.

Therefore, there is a need to continue to invest in research and policy action to reduce the impact to people through the virus in the transport sector. At the same time, lessons learned should be used for tackling the existing and growing problems in the transport sector.

Futureproofing the future transport (research) agenda should consider the following:

- Create a global health and transport agenda;
- Enhance climate mitigation and adaption action;
- Accelerate the inclusive and accessibility perspective for the most vulnerable groups;
- Strengthen global partnerships to enhance local and national action.

CREATING A GLOBAL HEALTH AND TRANSPORT AGENDA

Transport is a major threat to the health of the population due to the increase of motorisation. The health impact of air pollution with more than 4 million premature deaths and road accidents causing more than 1.3 million fatalities each year are the main areas of attention by the health and transport community.

The pandemic has shown that there is a need for a better and wider understanding of the nexus between transport and health. The [recent special report from the WHO](#) is a starting point for a more comprehensive research and policy agenda on transport and health.

The report includes 10 recommendations including the aspects of recovery, health benefits of climate actions, resilience, as well as the need for reimagining of the urban environment, transport and mobility.

ENHANCING CLIMATE MITIGATION AND ADAPTATION ACTION

The latest submission of National Determined Contributions (NDCs) to the UNFCCC as required by the Paris Agreement, showed a continuous lack of commitment towards action in the transport sector.

While the vast majority of the countries included [transport in their NDCs](#), only about 41% of the countries set a specific sectoral reduction goal for the sector and many lacked a systematic decarbonisation strategy particularly considering the freight sector.

While 18% of the second generation NDCs mentioned the impact of the COVID-19 pandemic, reporting

negative impacts on its overall economy and public budget, only two NDCs make reference to the opportunity to “build back better” supporting the implementation of ambitious climate goals. With the [Glasgow Climate Pact](#), countries will have to come back within a year to showcase the increased level of ambition and action at the next COP27 in Egypt.

This will be an opportunity to further draw attention to the COVID-19 national recovery spending and the opportunity to use it for an investment for a better and more resilient transport system.

ACCELERATE THE INCLUSIVE AND ACCESSIBILITY PERSPECTIVE FOR THE MOST VULNERABLE GROUPS

The pandemic has increased the challenges faced by the most vulnerable and poor parts of the population with regard to accessing jobs, healthcare and education and, in parts of the world, they have suffered from increased costs for local transport services.

Paying more attention to all vulnerable groups as part of research activities, as well as in policy action is even more crucial in the wake of the pandemic than ever before.

STRENGTHEN GLOBAL PARTNERSHIPS TO ENHANCE LOCAL AND NATIONAL ACTION

Partnerships in the transport sector are crucial to raise more awareness of the key challenges people are facing in terms of health, climate and inclusivity and can help to enhance action through better coordination and common activities.

HVT's contribution at the beginning of the pandemic to take stock of the international transport

stakeholder response and its later [call to action](#) brought more attention to the role of transport in the LMICs.

Futureproofing the transport system will require the international transport community to further increase its common efforts to support particular LMICs in their transition to a safer, healthier, inclusive and low carbon transport system.

Creating a new health and transport agenda, enhancing climate action on mitigation and adaptation in preparation to COP27 and strengthening the attention to inclusivity and accessibility will be key tasks for future partnerships in the current and Post-COVID-19 environment.

A photograph of two people on a motorcycle. The driver is wearing a teal helmet with 'TRUE NATIVE ZEUS' branding and a teal face mask. The passenger is wearing an orange helmet. Both are wearing teal jackets. The motorcycle is teal. The background is a dark, textured wall with a tree trunk and a yellow and black striped pole.

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