



FINAL REPORT: Improving transport planning to mitigate against the potential impact of pandemics in LICs

COVID-19 Recovery & Response Transport Research Fund

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Abstract	
<p>The project's original focus, on incorporating pandemic measures into terms of reference for future transport plans, evolved towards producing guidance to support decision-makers and practitioners in transport and public health planning. The project's main output is a Planning Guide for different groups of transport stakeholders from national ministries, road and rail infrastructure managers, public and private sector transport operators, to freight and logistics organisations. The Guide is based on literature on COVID-19, previous pandemics and epidemics which identified transport-related impacts and response measures. We studied health measures in national and city transport plans and assessed the inclusion of transport in pandemic plans. We published a Planning Guide that sets out short- and long-term measures to make transport in LICs more resilient to pandemics as part of future sustainable transport plans.</p>	
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CONTENTS

Executive Summary	iii
1. Introduction	1
1.1 Project aims and objectives	1
1.2 Transport challenge being addressed during/post COVID-19	1
1.3 Alignment with the HVT research themes, priorities and programme objectives	1
1.4 Alignment with FCDO priorities	1
2. Methodology	2
2.1 Summary of approach	2
2.2 Methodology	2
3. Implementation	4
3.1 Activities conducted	4
3.2 Project findings	4
3.3 Low-income country beneficiaries	7
3.4 Limitations of the innovation/ approach/ design/ system	7
4. Research uptake and next steps	8
4.1 Research uptake/ dissemination activities	8
4.2 Project outputs	8
5. Conclusion and recommendations	9

APPENDICES

APPENDIX A: Summary of Feedback on Draft Planning Guide	11
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TABLES

Table 3-1: Advisory Group	4
Table 5-1: Operational Planning Measures	9
Table 5-2: Long-Term Planning Measures linked to GRA Goals	10
Table 5-3: Long-Term Planning Measures specific to Universal Access	10

FIGURES

Figure 2-1 Tool for Systematic Literature Review	3
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ACRONYMS

C-19RRTRF	COVID-19 Response & Recovery Transport Research Fund
CILT	Chartered Institute of Logistics and Transport
COVID-19	Coronavirus Disease 2019
FCDO	Foreign, Commonwealth & Development Office
GRA	SuM4All Global Roadmap of Action Towards Sustainable Mobility
gTKP	Global Transport Knowledge Partnership
HIC	High-income Country
HVT	High Volume Transport Applied Research Programme
ICT	Information Communications and Technology
IMC	IMC Worldwide Ltd
IRF	International Road Federation
ITF	International Transport Forum
LIC	Low-Income country
LMIC	Low- to Middle-Income country
PIARC	World Road Association
SSATP	Africa Transport Policy Programme
SuM4All	Sustainable Mobility Program for All
TRB	Transportation Research Board (United States)
TRR	Transportation Research Record
TUMI	Transformative Urban Mobility Initiative
UIC	International Union of Railways
UITP	International Association of Public Transport
UNRSC	United Nations Road Safety Collaboration
WHO	World Health Organisation



EXECUTIVE SUMMARY

Transport response to the COVID-19 pandemic has witnessed a host of short-term actions and policy measures across high- and low- to middle-income countries (HICs and LMICs). For these short-term actions to be more effective in the long-term, the transport and health sectors need a more integrated approach to make transport more resilient to future pandemics.

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. Accordingly, the transport sector in urban and rural areas must plan to increase its resilience to future pandemics and do as much as it can to constrain the spread of pandemics.

This project produced a document 'Making Transport in Low-Income Countries Resilient to Pandemics: A Planning Guide'. The Guide was based on a literature review of international good practice of transport stakeholders in their response to COVID-19, as well as to other pandemics and natural disasters.

The Planning Guide evolved from the project's original focus on incorporating pandemic measures into terms of reference for future transport plans, towards producing guidance to support 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.

- Part 1 of the Guide provides an overview of the impact of recent pandemics on the transport sector around the world. It demonstrates the importance of the transport sector during pandemics and highlights why improving resilience is so important.
- Part 2 of the Guide describes operational planning measures that transport organisations should take in order to prepare for a pandemic. Preparedness for future pandemics can be improved by clear operational guidance on the health and safety of key workers, transport workers and the travelling public, and the continued provision of key services during pandemic restrictions.
- Part 3 of the Guide describes key long-term planning measures that national, urban and rural transport agencies can take to better plan and prepare for pandemics. It focuses on the integration and coordination of planning across the transport and health sectors and wider government. These long-term measures also align transport resilience to pandemics with global sustainable transport mobility goals.
- Part 4 of the Guide summarises the operational and long-term planning measures that governments and stakeholders in LICs can use to update transport and health policies for increased resilience to future pandemics.

The Guide can be used by LIC governments and development partners to help plan investments in sustainable transport networks that are resilient to pandemics and that provide mobility for all.



1. Introduction

1.1 Project aims and objectives

The project aim was to produce a concise but comprehensive checklist of policies for inclusion in post-COVID-19 transport plans for LICs in order to mitigate and adapt to pandemics. The project focuses on road and rail transport, active travel, and on linkages between them.

1.2 Transport challenge being addressed during/post COVID-19

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 reductions 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.

1.3 Alignment with the HVT research themes, priorities and programme objectives

The project aims and objectives align with many of the action areas outlined in the HVT Call for Collective Action for International Transport Stakeholder to respond to the COVID-19 pandemic [1]. These included the collection and sharing of information as well as technical and policy guidance for low-income countries (LICs); and the interaction of transport with other sectors, specifically the health sector, to improve resilience to future pandemics.

1.4 Alignment with FCDO priorities

The HVT Applied Research Programme is funded with UK Aid from the UK Government, and is updating vital transport research that reduces poverty and develops economies. The aim of the programme is to make transport safer, greener, more affordable, accessible and inclusive in low-income countries. Improving the resilience of the transport sector in LICs to pandemics is a fundamental component of future sustainable transport.



2. Methodology

2.1 Summary of approach

The project was based around literature reviews which focused on several different aspects of pandemics in transport. These were:

- 1. Transport-related impacts and measures in response to pandemics.** We catalogued the impacts of pandemics on transport, and the transport policies that have been implemented in response to COVID-19 and other pandemics. This review covered high-income countries (HICs) and low- to middle-income countries (LMICs) from 2000 to 2020.
- 2. Health measures in national and city transport plans.** We analysed national transport plans from HICs and LMICs from 2010 to 2020, which explicitly mentioned health, public health or pandemics as well as epidemics, infectious diseases, or influenza.
- 3. Transport Plans and Terms of Reference for preparation of transport plans in LICs.** We examined transport plans, and Terms of Reference for Transport plans prepared by national transport agencies in LICs from 2010 to 2020, that included any reference to health, public health, pandemics, or epidemics.
- 4. Review of national pandemic preparedness plans in LICs.** We examined a range of influenza pandemic preparedness plans for LICs as recommended by the World Health Organisation (WHO). We searched for evidence of any comprehensive assessment of impacts on transport and any consolidated approach to improving transport resilience to pandemics.
- 5. Hurricane Response Plans.** We examined hurricane response plans from the Caribbean for any lessons to be learned by the transport sector in preparing for pandemics.

2.2 Methodology

We conducted the literature reviews from October to December 2020. While there was little if any published literature relating to COVID-19, there was significant grey literature on the impacts of COVID-19 on economies and transport. Many international transport stakeholders also held webinars after COVID-19 was declared a pandemic in March 2020. Recordings of those webinars are available on-line. Those stakeholders included the International Road Federation (IRF), World Road Association (PIARC), and Africa Transport Policy Programme (SSATP). The webinars include presentations from public transport operators, freight operators, toll road concessionaires, and government transport officials. Presentations from webinars held from March 2020 through to December 2020 were also used as inputs to the guidance produced under this project.

We reviewed national pandemic plans produced in response to earlier calls from the World Health Organisation (WHO) to develop or update national influenza preparedness plans. The purpose of this review was to identify examples of transport-specific guidance as part of pandemic plans.

It became apparent from the start of the COVID-19 pandemic that many of the response measures taken by governments were aligned with the policy goals of the SuM4All Global Roadmap of Action towards Sustainable Mobility (GRA). Therefore, we reviewed the GRA to identify how the links between COVID-19 response measures were aligned with those GRA goals.

We conducted a systematic literature review using an in-house search tool. This documented the terms, inclusions and exclusions and date ranges used for each of our research questions. Figure 2-1 gives an example of one of our searches.



Figure 2-1: Tool for Systematic Literature Review

What transport policies are nations/cities implementing in response to covid & other pandemics?				
Date range	2000-2020			
Health Terms	Document Terms	Transport Terms	Impact Terms	Exclusion Terms
Covid	Transport Policy	Transport	access to health services	Airport
Coronavirus	Transport Strategy	Rail	access to employment	Maritime
Covid-19	Transport Plan	mobility	access to education	Airline
SARS-CoV-2	Terms of Reference	highways		Flight
corona	response	roads		
Pandemic	action	buses		
Epidemic	legislation	taxis		
Outbreak	advice	cycling		
plague	guidance	commuting		
infectious disease		Urban Transport		
public health		Rural Transport		
		informal transport		
		mutatus		
		services		
		infrastructure		

These searches were applied to a range of data sources including the International Transport Forum (ITF), the World Bank Open Knowledge Repository; Transport Research International Documentation (TRID); World Road Association (PIARC), and Google Scholar. We also reviewed articles or publications from the HVT Applied Research Programme, and the Research for Community Access Partnership (ReCAP) research programmes.

Our search results identified a significant number of documents (including webinar videos) which we reviewed as input to the Planning Guide developed under the project:

- Search 1: What are the impacts of COVID on transport, and what policies are nations/cities implementing in response to COVID & other pandemics (2000 – 2020) (170 docs)
- Search 2: Published transport plans for LICs, both national and city level (2010 – 2020) (30 docs)
- Search 3: Transport Plans and TORs for Transport Plans in LICs (2010 – 2020) (26 docs)
- Search 4: Pandemic planning for LICs (not time limited) (33 docs)
- Search 5: Hurricane response plans in the Caribbean (not time limited) (2 docs)



3. Implementation

3.1 Activities conducted

We reached out to various stakeholders in LICs, LMICs and the wider international community (SuM4All Program Manager) in early November 2020. As a result these stakeholders became part of an Advisory Group. Positive responses were received from representatives in the organisations and countries listed in Table 3-1. Respondents were also asked to reach out to representatives in their countries, in other agencies or organisations such as health, public health, transport operators.

Table 3-1: Advisory Group

Country	Transport Ministry (National)	Roads Authority	Road Fund	Urban Transport Authority	Transport Operator	Transport Research Centre	Health / Public Health Authority
Ethiopia				√			
Malawi	√						√
Uganda		√					
Bangladesh							√
India							
Myanmar							
Nepal						√	
Tanzania			√				
Organisation							
World Bank (SuM4All Program Manager)							

We distributed an outline of the Planning Guide to our contacts on 15th November 2020 to elicit comments on scope and overall content, and to identify other literature sources.

We presented an outline of the project at the COVID-19 Response & Recovery Transport Research Fund (C-19RRTRF) Knowledge Exchange event hosted by IMC on 8th December 2020. This event was designed to gain knowledge on the scope and extent of other C-19RRTRF projects and to identify synergies.

We worked on the draft Planning Guide throughout November and December 2020 and distributed it to all members of the Advisory Group, and to all participants from the Knowledge Exchange event, on 21st and 22nd December 2020.

We shared project information through the COVID Mobility Works platform on 11th January 2021.

We held a webinar, hosted by the Chartered Institute of Logistics and Transport (CILT), on 26th January 2021. This was attended by CILT members from Bangladesh, Egypt, Nigeria, Uganda, and Sierra Leone. We received several comments and questions during the webinar and in follow-up emails which we addressed in the final Planning Guide. Annex 1 contains a summary of comments received on the draft Guide, and shows how we incorporated these comments into the final Planning Guide.

We completed the final Planning Guide on 9th March 2021.

We presented the Planning Guide at a COVID-19 webinar on 25th March 2021 hosted by the IRF through the Global Transport Knowledge Partnership (gTKP) as noted further under dissemination below.

3.2 Project findings

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 reductions 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.

3.2.1 How pandemics disrupt transport

Public transport services reduced, transport workers and traveling public at risk

Government efforts to stop the spread of COVID-19 included full or partial lockdowns that restricted people's travel to work, schools, hospitals and shops. However, even under lockdown, certain key transport services are vital for the economy and society to function. Operators providing essential transport services, for instance, along toll roads, at bus and railway stations, and in long-distance transport rest areas must still work. However, transport workers because of their interaction with the public are at a high risk of exposure to COVID-19. Therefore, transport companies quickly adapted their services and implemented new public health measures. These measures included physical distancing and distribution of personal protective equipment (PPE) for workers and the travelling public. In some cases, the wearing of face masks was mandatory. Body temperature testing devices for the detection of fever were deployed at train and bus stations. Despite these measures, many workers simply stayed at home, hindering transport's role in the provision of essential services.

Freight services suspended or delayed

Many national and city authorities placed restrictions on the movement of freight, only allowing essential goods such as food or medical supplies to be moved or restricting their movement to weekends. However, these restrictions on movement of non-essential goods caused congestion in ports and warehouses in some countries, and reportedly contributed to price rises.

Border crossing operations disrupted

Many African and Asian countries closed their borders or restricted border opening times, whilst introducing mandatory COVID-19 testing of drivers and travellers. A limited availability of PPE at ports or borders, incidences of COVID-19 among border control agents, and staff absenteeism delayed the clearance of freight and passengers. These disruptions created traffic tailbacks of more than 20 km at some borders, doubling or even trebling border transit times.

Experience from the HIV/AIDS epidemic and Ebola outbreaks showed infection rates to be higher around border crossings and identified long-distance transport as a vector that spreads viruses along strategic transport corridors. Transaid, an international transport non-governmental organisation (NGO), reported that truck drivers in Africa were consequently facing public hostility at border and transit rest stops.

Toll road revenues take a hit

Lockdowns and travel restrictions resulted in a dramatic fall in toll road revenues. On road networks and on major bridges where "shadow pricing" is used, operators foresee substantially lower revenues due to reduced traffic flows. Toll road concessionaires called for an extension of concession periods, and in many countries toll road associations are calling for short-term financial support.

Road fatalities decrease but not to same degree as traffic volumes

Dramatic reductions in traffic volumes during COVID-19 restrictions led to lower road fatalities in many countries. However, based on preliminary data in Europe, reductions in road fatalities were not in proportion to lower traffic volumes. This anomaly was due to increased traffic speeds resulting in higher-impact crashes and thus fatalities. Reports also showed that emergency services took longer to respond to road crashes because COVID-19 cases were given priority. Delays in treating road crash victims could increase the impact of injuries and lead to higher fatalities.



Motorbike and bicycle taxis become less popular

Motorbike and bicycle taxi operators also registered a reduction in passenger numbers and revenues as people avoided taxis due to perceived health risks. Other shared mobility services suffered during COVID-19 with the suspension of many ride-share and bike-share services and cancellation of e-scooter rentals.

Walking and cycling increase in popularity

The walking and cycling components of active travel increased during the COVID-19 pandemic. Many cities in High-Income Countries (HICs) observed an increase in people walking or cycling to avoid the perceived health risks of public transport. All these cities initiated or expanded pop-up infrastructure or pedestrian zones to set aside safe spaces for walking and cycling. Similar smaller-scale initiatives already operating in some LICs.

Asset maintenance brought forward

Some national road and rail agencies, taking advantage of lower traffic conditions, brought forward asset maintenance programmes that also formed part of a wider employment stimulus when other economic sectors were mothballed. Some cities also implemented programmes for the maintenance of footpaths, or removal of obstacles from footpaths, to facilitate active travel.

3.2.2 How transport disruptions impact the economy, commerce and livelihoods

Transport disruptions had significant economic, commercial, and social impacts in many countries as set out below, and more so in LICs.

Economic impact

COVID-19 has disrupted all economies worldwide. Transport has been affected in a variety of ways, which has had a knock-on effect on economies. Transport services have reduced almost everywhere. The resultant drop in business incomes and delays in long-distance transport reduced commercial trade and exacerbated economic issues in developing regions. Although all sectors of the economy experienced economic shocks, some have responded better than others. Labour-intensive sectors such as construction, textiles and retail have suffered most. Sectors that depend on e-commerce, including some retail services such as food and drink, have benefited most during lockdown and restrictions. All these sectors depend on transport to some extent, so any disruption of the availability and efficiency of transport services directly affects the economy.

LIC economies may be more vulnerable to pandemics due to limited Information Communications and Technology (ICT) infrastructure including e-commerce. This can mean less scope for home working, less opportunity for businesses to respond via e-commerce solutions, and less opportunity for workers to make a living without travelling to work.

In LICs, where personal car ownership is low, people rely heavily on public transport. Therefore, disruptions to public transport that limit people's ability to travel to work has a significant impact on the economy and affects poorer economies disproportionately.

Commercial impact

The International Transport Forum (ITF) predicted in May 2020 that due to COVID-19 global freight transport volumes would fall by more than one third. These falls included significant regional differences of up to 50% for ASEAN countries, Russia/Central Asia and India, 40% in Europe and the Americas, and between a half and a third in African countries. Consequently, many countries experienced significant reductions in customs revenues from this decline in trade.

Urban freight levels are generally forecast to reduce slightly, but inter-urban freight levels are projected to reduce more. Reductions in urban freight are lower due to the growth of on-line shopping during lockdown resulting in more goods vehicles circulating, although overall urban traffic levels have reduced. Cross border freight traffic has reduced.

Travel and tourism have suffered greatly due to bans on international travel and people's reluctance to visit other countries. Tourism is the third largest export sector of the global economy and relies heavily on all modes of transport. Losses from tourism revenue as a result of COVID-19 are estimated to be up to 2.8% of global GDP. Travel and tourism will take longer to rebound than most sectors. LICs that depend heavily on tourism and air transport will likely experience serious impact and take longer to recover.



3.2.3 Livelihoods under threat, gender and inclusion harder hit

Reductions or suspensions of public transport services had a profound social impact, particularly on the poor who have fewer alternative means of access to jobs, health services or food supplies. Public transport fares in many cities increased as companies compensated for reduced ticket revenue and the extra costs of sanitary measures. Transport costs in LICs account for a high proportion of daily expenditure, so higher fares are an additional burden for low-income households.

COVID-19 can have a disproportionate impact on women, because women in LICs rely more on public transport than men and therefore face higher exposure to COVID-19. Women also are over-represented in customer service or cleaning roles in transport that are generally lower paid jobs, which means women often cannot pay the higher fares resulting from COVID-19 transport disruptions.

Persons with disability are especially vulnerable during pandemics. Physical distancing is particularly challenging on public transport, on which a high proportion of persons with disability rely. In some LICs, there are limited disabled infrastructure and services, and often little or no information on how to access these services. Disruptions to transport have compounded the problems that persons with disability already face.

Long-term impacts on transport demand

Pandemics may influence permanent changes in behaviour and transport demand in the long term. Full and partial lockdowns reduced public and private transport usage fuelled by a perceived public health risk. COVID-19 has heightened the health risk of travelling on overcrowded buses, minibuses and trains, and this could lead to a behavioural shift in transport choices. Yet, vaccination campaigns that increase immunity and thus reduce perceived health risks could result in a recovery in public transport demand.

Evidence from HICs emerging from COVID-19 lockdowns and from previous pandemics and recessions indicates that total transport demand may bounce back quickly. In most countries, total travel demand is anticipated to return to pre-COVID-19 levels within 6 – 12 months. However, evidence from LICs post-COVID-19 is yet to emerge.

3.2.4 Integrated planning approach for a transport pandemic plan

Research identified previous calls to link transport and health in transport plans. The Planning Guide makes these links through an integrated approach to preparing a transport pandemic plan to maintain transport's vital role in the economy and society during pandemics.

3.3 Low-income country beneficiaries

The Planning Guide will support decision makers and practitioners in transport and public health planning. The Guide 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.

3.4 Limitations of the innovation/ approach/ design/ system

Much of the research conducted under this project was based on grey literature identified during the COVID-19 pandemic. Peer-reviewed literature may become available in the near future which might identify other measures that can be considered.

It is understood that SuM4All is planning to update the GRA as a result of its experience with the COVID-19 pandemic. It is expected that our Planning Guide will provide a concise summary of the impacts of COVID-19 and other pandemics, and of measures to mitigate future pandemic that will inform the GRA update.



4. Research uptake and next steps

4.1 Research uptake/ dissemination activities

We completed the Planning Guide on 9th March 2021 and it was published on the [HVT website on 16th March 2021](#).

We presented the Planning Guide at the IRF-gTKP HVT COVID-19 webinar on 25th March 2021. The IRF, with the support of the UK-AID HVT programme, transformed and enhanced the gTKP portal in order to fast-track access to knowledge, experience, learning resources and good practices on COVID-19 & Transport. This transformation of the gTKP portal will also support efforts for a transformative transport agenda post-COVID by ensuring that access to knowledge created within ReCAP, HVT and United Nations Road Safety Collaboration (UNRSC) is made effectively accessible and used to inform decisions for the recovery.

We are preparing a project journal or academic paper for submission to the Transportation Research Record (TRR). HVT has agreed a special issue with TRR for research papers arising from the HVT C-19RRTRF projects. If our submission to TRR is unsuccessful, we will explore alternative publications with the advice of HVT.

4.2 Project outputs

The output of this project is 'Making Transport in Low-Income Countries Resilient to Pandemics: A Planning Guide'.



5. Conclusion and recommendations

Previous calls to prepare for pandemics and disasters in HICs and LMICs have resulted in many national preparedness plans. However, these plans have not provided specific guidance for the transport sector, and there has been no clear linkage between health and transport. Unless these plans provide specific guidance and coordination between key sectors transport will fail to play its vital role in supporting the economy, health, education, and livelihoods during a pandemic.

Many of the measures taken by governments in response to COVID-19 have also aligned with the policy goals of the SuM4All GRA in terms of universal access, efficiency, safety and green mobility. Measures that have long been considered essential to improving universal access can also increase transport resilience to pandemics.

Therefore, we produced a Planning Guide which outlines an integrated approach to preparing a transport pandemic plan which links transport, health, and the policy goals of the GRA. The Planning Guide sets out both operational and long-term measures that transport organisations should take to increase transport resilience to future pandemics.

Operational Measures

Operational measures include those for protecting the health and safety of workers, protecting the health and safety of the public, developing contingency plans for absenteeism, and providing public information about services. These measures are for public and private road and rail transport managers, haulage companies, logistics companies, port and border post officials, transport infrastructure authorities and transport agencies at national and local government level.

To help private and public sector managers implement such measures, the ministry of transport should create a national transport pandemic plan, and work with other government departments to ensure that effective and efficient policy and regulatory frameworks are in place. This should include establishing clear lines of communication and responsibilities for implementing public health measures in transport; and working with NGOs to use their disaster relief, logistics and public health expertise to support communities. Other important policy measures are the designation of transport workers as key workers, the designation of transport services as key services, providing transport services for key workers, reviewing customs and staffing arrangements at border posts, reviewing regulations for vehicles and vehicle use, developing contingency plans for sourcing essential goods and services, and providing awareness training on responsibilities of all stakeholders in future pandemics.

The main recommendation measures are shown in Table 5-1, refer to the Planning Guide for additional detail.

Table 5-1: Operational Planning Measures

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



Long Term Planning Measures

The Guide sets out measures for planning departments and transport agencies at national, city and local government levels. City authorities with sustainable urban mobility plans should be able to move quickly to design and implement urban transport pandemic plans. All agencies should use this long-term planning guidance to carry out research that determines resilient measures aligned to GRA goals to update transport pandemic plans and national and city-level sustainable transport plans.

Thus, for example, any measures taken to restrict the movement of people during a pandemic should embed basic principles of universal access. They must be transparent, proportionate, relevant, and non-discriminatory. Similarly, any measures taken to provide support and relief to transport providers and operators should be applied equitably and consistently. Such policies should be embedded in a transport pandemic plan to ensure that any future measures in response to a pandemic align with these basic principles.

The measures are listed in terms of the policy goals of the SuM4All GRA as shown in Table 5-2.

Table 5-2: Long-Term Planning Measures linked to GRA Goals

How improving resilience to pandemics aligns with universal access goals
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
How improving resilience to pandemics aligns with efficiency goals
Strengthen and adapt border crossing procedures
Implement e-procurement systems
Implement e-payment systems
Implement information systems for public messaging
Develop metrics for resilience
How improving resilience to pandemics aligns with safety goals
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
How improving resilience to pandemics aligns with green mobility goals
Construct assets to support active travel
Reapportion road space to cycling and pedestrians

There are other linkages between the Planning Guide and the GRA. Measures that have long been considered essential to improving universal access, such as those highlighted in Table 5-3, can also increase pandemic resilience. The Planning Guide promotes an integrated approach to transport planning, health and the policy goals of the GRA to help improve transport planning for pandemics.

Table 5-3: Long-Term Planning Measures specific to Universal Access

How improving universal access can contribute to resilience to pandemics
Urban Planning
Rural Planning
Integrated multi-modal transport planning



APPENDIX A: SUMMARY OF FEEDBACK ON DRAFT PLANNING GUIDE

This appendix contains a summary of comments received on the draft Planning Guide, from members of the project Advisory Group and from attendees at the webinar hosted by Chartered Institute of Logistics and Transport (CILT). It shows how we incorporated those comments into the final Planning Guide.

1. Please identify any examples of pandemic plans from HICs with a transport element.

We updated the final Planning Guide with additional examples.

2. Please give any examples of LICs that have applied subsidies or grants to the transport sector during the pandemic.

We updated the final Planning Guide with additional examples.

3. Please identify any LICs that have implemented the measures, or are considering implementing the measures, discussed in the Guide.

We updated the final Planning Guide with additional examples.

4. How can we overcome the challenge of the absence of a structure for implementing this strategy, in an environment where transport services are essentially provided by individual small operators, who choose where and when to operate, without a real public transport planning guidance?

We clarified the recommendations for ministries of transport in documenting the roles and responsibilities of government in the transport plan for pandemics. Also identified examples in which governments in LICs assisted the informal transport sector.

5. What about role of the NGO sector in relation to this issue?

We highlighted the potential role of NGOs in the final Guide, and added guidance relating to ministries of transport coordinating with NGOs in the transport and health sectors.

6. How can transport organisations balance the additional costs arising out of the pandemic with reduced revenues?

We updated the final Guide to give examples in which LMICs have provided subsidies or grants to the transport sector. Also provided links showing examples of emergency funds established by some of the multilateral development banks.

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