Indo-Africa Dialogue
Restarting Public Transport in Africa
Safe and Affordable Commute for Clean Air

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Blue sky caught imagination in India
Africa
Blue Sky - Incredible Change
Pre-COVID-19 during pandemic - aerosol optical thickness
- Aerosol suspension over countries with high population density huge
- Pollution reduced during March and April
- Started increasing after lockdown restrictions eased in May.

1) Ghana: lockdown (30/03 – 20/04)
2) Nigeria: lockdown (30/03 – 12/04)
3) Ethiopia: transport ban on 30/03
4) Kenya: movement restrictions on 12/03 till May
5) Rwanda: lockdown (21/03 – 19/04)
6) Cote D’ivoire: movement restrictions on March 4
7) Uganda movement restrictions on 25/03
8) Senegal movement restrictions on 23/03
Air pollution is already a growing challenge in the region
PM2.5 levels in African cities

Source: WHO Air quality database 2016
Dust invasion from Sahara
June 2020

Source: Pawan Gupta NASA
Growing public health crisis

Population-weighted annual average PM2.5 concentrations in 10 populous countries and EU (2010-16)

Nigeria: Impact of COVID19 Pandemic on activity pattern
(Percentage Change)

Retail & Rec. trips: -58%
Grocery & Pharm. trips: -48%
Park trips: -53%
Transit trips: -58%
Workplace trips: -62%
Residential trips: +33%

Source: Google COVID-19 community mobility reports
Kenya: Impact on activity pattern
(Percentage Change)

Retail & Rec. trips: -50%
Grocery & Pharm. trips: -39%
Park trips: -38%
Transit trips: -47%
Workplace trips: -60%
Residential trips: +32%

Source: Google COVID-19 community mobility reports
South Africa: Impact on activity pattern
(Percentage Change)

Retail & Rec. trips: -82%
Grocery & Pharm. trips: -62%
Park trips: -60%
Transit trips: -84%
Workplace trips: -85%
Residential trips: +44%

Source: Google COVID-19 community mobility reports
Libya: Impact on activity pattern
(Percentage Change)

Source: Google COVID-19 community mobility reports
Massive drop in visits to transit stations
From lowest 28% drop in Zambia to highest 92% in Mozambique

Percentage change in visit to Transit Station Area in different African countries

Source: Google COVID-19 community mobility reports
Post pandemic: Reinvent mobility
Move people and not cars

• Today we are re-opening without any plan to keep the clean air benefits of the lockdown
• Restraint on public transport means more cars and two-wheelers
• We expect the ‘new normal’ to be the ‘old normal’ very soon

• This is where we must do things differently
  • A. Learn from the south-south experience and best practices globally and re-start public transport so that it ensures safety
  • B. Massively augment public transport services and quickly so that we can take a train; bus; walk and cycle
India: Immediate short term steps

- All implementing the **hygiene and safety measures**; like
  - Periodic sanitization of buses, major terminals, bus stops.
  - Mandating use of masks for all users.
  - Daily health check up of all the crew members and reporting of same.
  - PPE kit for drivers and conductors.

**Operational measures:**
- **Limiting the service capacity**; i.e. Bhubaneswar (CRUT) is currently operating 65/200 buses in limited route network.
- **Limiting the bus capacity**; i.e. maximum bus capacity
  - Delhi – 20 (including zig-zag seating and standing), BMTC, Bangalore – 50% of the overall capacity of buses (approx. 30 people) Bhubaneswar & WBTC, West Bengal – all seating but no standing, etc.
  - **No cash transaction within buses**, in Bangalore or limited transaction (full fare) in Delhi, Bhubaneswar and West Bengal.
  - **QR based ticketing** at Bhubaneswar and Bangalore.
  - **Implemented strict bus etiquette**, boarding in queue; entry from rear door and exist from front door, etc.

- **Public out-reach and awareness campaign**; like in “MOBBY” mascot for CRUT, Bhubaneswar
- **Intermediate Public Transport – Limited occupancy and hygiene**
Global North: Most cities did not lockdown; public transport systems remained functional

Immediate measures

- Hygiene and cleanliness for protection; Build user trust in the system
- Protocol and guidelines including appropriate scheduling practices, rationalizing routes, modifications in vehicle design, remodelling AC buses, etc
- Re-purposed trips and changed timetable and holiday schedule, closed stations to prevent overcrowding (Paris, Finland, Germany, Washington etc)
- Emergency service
- Announced free trips for essential service workers, low-income groups and also to contain car usage (New Zealand)
GUIDANCE FRAMEWORK
For Public Transport Operations in Africa during COVID-19 Pandemic
Africa: Immediate steps for safe operations

Public transport: detailed guidelines adopted

Nigeria
• **Hygiene and physical distancing:** Mandatory use of face masks; physical distancing; personal hygiene; temperature checks for passengers; hand sanitising points at bus stops
• **Limiting occupancy** -- buses with 50% passenger capacity from 8 am to 4 pm daily;
  • BRT and Lagos Bus Services Ltd not to carry more than 21 passengers, no standing passengers
  • Air conditioning in buses has been banned; Danfos (yellow buses) cannot carry more than eight passengers
• **Ban on non-essential interstate passenger travel**

Ethiopia
• **Hygiene and physical distancing:** Hand hygiene and avoid unnecessary physical contact
• **Limiting occupancy:** Addis Ababa light rail transit is allowed to transport 25 per cent of its capacity
  • Ethio-Djibouti train can carry 50 per cent
  • Addis Ababa’s rail network, have reduced the daily number of travellers by more than half.
  • Cross-country buses, taxis and city buses are not allowed to carry more than 50% seating capacity
• **Special buses designated for public servants**
• Government buses free of charge to help control crowding in public transport;
Africa: Public transport

Rwanda

- **Hygiene and physical distancing:** Hand washing, sanitising equipment to passengers; Face masks; Bus companies to clean their vehicles with disinfectants.
- **Non-compliance is a punishable offence**
- **Restricted occupancy:** Passenger vehicle seats are marked
- **Physical distancing:** Keep one-metre social / physical distance between one another while boarding and alighting
- **Avoid cash transactions** and use cashless payment

South Africa

- **Social/physical distancing** with passenger capacity at 70 per cent in public transport vehicles
- **Limiting occupancy:** All allowed to carry 50% of their passenger capacity
- **Cashless payment:** Use MyConnect cards for cash less transaction
- Operating time of various public transport modes such as buses, minibustaxis, charter and shuttle services revised to ease movement of people. Metered taxis and e-hailing services are included. From 5 am to 7 pm
- **Signage and posters informing and educating commuters about COVID-19**
Africa: Intermediate public transport

**Nigeria**
- Ban on commercial motorcycles, okadas within the FCC, Lagos
- Tricycles allowed to ply in designated areas
- Taxis can carry four people including the driver
- Compulsory disinfection of vehicles, parks and garages
- Abandoned vehicles need to be evacuated

**Ethiopia**
- Only 8 passengers allowed in 14-seater matatu
- Only one in boda-boda, with mandatory wearing of face masks by both riders; 15 in 25-seater vehicles;
- 60% maximum seating capacity in 30-seater vehicles and above; and 60% in SGR and commuter train services
- If fail transport operator’s Sacco licenses are to be revoked and charged in court under the Public Health Act, and impounded

**Ghana**: Trotro s and taxis mandated social distancing
Motorbike riders are not allowed to carry any additional person or rider with them

**South Africa**: A five-seater vehicle is permitted to carry 2 passengers and a driver

**Uganda**: Boda-boda and tuk-tuk with restrictions
Huge economic impact
Link public transport reforms with green recovery

India
Traffic revenue down by 48%; No national fiscal plan yet. Some states have waived off passenger taxes on buses; India needs 149,000 more buses – Needs financial strategy for long term sustainability of systems

Africa:
Economic Commission for Africa (ECA) estimates that a one-month full lockdown across Africa could cost the continent about 2.5% of its annual GDP

Senegal: The government has allocated a grant to operators to compensate for their losses.
Ghana: Fuel made cheaper for public transport

Global North
TFL, London, San Francisco's public transport system reporting massive losses
London: Bailout package – emergency fund (1.6 bn UK pound); Loan package, Cost cutting measures; may revise fares
Hong Kong: Hong Kong: 20% fare subsidy to commuters for 6 months. Employment support scheme for transit operators where govt. is providing 50% wages for 6 months. Providing fuel subsidy to franchised buses, ferries, trams, taxi, public light bus operators.
Chance to build active transportaion

- Implement emergency plan to earmark and demarcate walking and cycling lanes – preference for contact free travel high among all income classes.

- Need local area plans to create appropriate infrastructure.

- Develop infrastructure to support cycling and walking e.g. bicycle lanes, expansion or repair of sidewalks, etc.

- Public amenities and public parks within neighbourhoods to enhance the experience.

- Reinforce compact urban form to reduce distances.

- India: -- Only one city Kolkata has opened up streets (earlier closed) to cycling during pandemic.
Kampala/Uganda: Restrictions on public transport promoted cycling
Uganda has adopted Non Motorised Transport Policy - open street events, Integrated walking and cycling corridor
Promoting as contact free and safe mode
Ethiopia: Addis Ababa: Safe Cycling Programme. Pandemic catalysing further expansion Bi-directional cycle corridor launched as part of Addis Ababa’s NMT strategy and safe cycling program.
World-wide: Rediscovering walking and cycling

Rapid increase in demand for contact free active transportation – walking and cycling

- **City bike count increased** by 74% to 470% (Melbourne, New York, Philadelphia, Chicago, Shenzhen, Edinburgh, Glasgow, Manchester, and Wuhan). Increased use and sale of bicycle (UK, European countries, and the US).
- **Big investment planned to create bike lanes** (Australia, California, France, etc); --- New York - ambitious plan to reconfigure road space for walking and cycling;
- **London Streetscape proogramme**
  - Repurposing traffic lanes and parking spaces for temporary bicycle lanes, pedestrianising school streets
  - Bicycle-sharing system free for health workers;
  - Extensive cycling network mapped out; new car free zones identified
- **Proposed to increase congestion charging** (increase from 11.50 UK pounds to 15 UK pounds)

*Pop up bike lanes*
Focus shifts towards reducing unnecessary travel

Strategies to reduce travel needs to reduce pressure on public transport systems

• Work From Home
  • Globally, companies like Amazon, SAP, Walmart, PwC has announced their plans to re-skilling their employees for digital working.
  • India – TCS to allow 75% of its employees to WFH by 2025.

• Preference for staggered timing and roster based attendance

• Use of home delivery services increased rapidly

• Need to design well – social trips may increase
Link green recovery with emissions standards and fuel quality roadmap

Age break up of vehicle stock

Nigeria

- 12-18 Years: 50%
- 6-11 years: 28%
- 0-5 years: 11%
- 19+ years: 13%

Ethiopia

- 4-5 years: 14%
- 5-7 years: 14%
- 3-4 years: 13%
- 2-3 years: 13%
- 1-2 years: 11%
- 0-1 years: 7%
- >= 10 years: 12%

Diesel fuel quality

Source: Anon. 2015, Vehicles in-use 2015 data, International Organization of Motor Vehicle Manufacturers (OICA)

Source: UNEP
The agenda for ‘New Normal’: Post-lockdown to keep the gains of blue skies and clear lungs
Public transport critical for economy to run: Way forward

• Restart and augment public transport system and service; build public confidence in safe public transport

• Reform based fiscal package and fiscal instruments to support revival of transit systems and reduce cost burden on bus-based systems.

• Adopt measures to alleviate pressure on strained public transport systems and optimise its use to meet immediate demand of reopening of economy

• Must plan/implement cycle-walk strategy for our cities to enable all income groups to access workplace and meet other needs within a reasonable residence. Growing interest in contact free and safe commuting.

• Must plan to do everything to reduce travel needs --- work from home, staggered timing and roster-based attendance etc, to cut down unnecessary travel and reduce pressure on strained public transport.

This agenda cannot wait anymore. It is long-term, but change must start now
Africa doing it right

Kampala

Los Angeles: Getting it wrong

Need speed and scale of change in global south

Nairobi

Lagos