Can we return to this “Normal” post Covid? NO!
Agenda for “New Normal”
Surreal? Blue sky; No traffic?

NCR: PM2.5 - Big drop

Delhi: NO2: Daily peak pollution flattens

Source: CSE analysis based on data available on CPCB online portal
Impact of COVID on Public Transport

- **Drastic reduction in ridership** (70 – 90%)

- **Changes in Service Delivery:**
  - Reduced Service duration
  - Reduction in Weekend Services
  - Reduction in Service Coverage
  - Rationalise the services according to new origin and destination – special services.

- Moovit, a Global Public Transit App, reports decline of 750 million trips (public transit, shared mobility services)

Personal vehicle usage increases; public transit reduced

Data Source: Apple Mobility Trends Reports; Analysis by CSE
India: Impact of lockdown on daily activities (Percentage Change)

Source: Google Mobility Data (from 15th Feb’2020 to 16th May’2020)
India and Global: Percentage change in visit to Transit Station Area

Source: Google Mobility Data (from 15th Feb'2020 to 16th May'2020)
Change in activity pattern in India

Activities in residential areas increased by 29%
Visit to workplace reduced by 60%
Retail and recreation visits reduce by 84%
Mobility crisis in India

**Complete lockdown**
- All public transport systems suspended operations; Massive ridership financial loss
- Concerns around increased fixed costs, insurance, high taxes, plummeting revenue

**Reopening amid crisis**
- Guidelines on hygiene and sanitization
- Social distancing protocols -- reduced occupancy, cashless transaction, boarding alighting norms, health check up and communication. Staff protection and management protocols
- Bangalore implementing bus priority lanes
- Digital data in maintaining safety protocol and mobility
- No financial package yet for rebuilding systems

**Challenge of low occupancy bus -- A quick estimate for Delhi --**

*Pre-lockdown*: 5400 buses with total service capacity of 741.6 lakhs km per day. With physical distancing norm service capacity to reduce to 211.9 lakhs km per day. To regain the service capacity at pre-lockdown level Delhi needs additional **13,243** buses. With protected bus lanes this can be reduced to **10049** buses. Ultimate solution – augment fleet and service.

**Intermediate transport and shared mobility – repurposing for**
deliveries groceries or essentials door-to-door; emergency services to take people to/from hospitals courier service; fixed route service
Waiting for a bus – need queue marking

Crisis of mobility for low income groups -- Gramin Seva – 7 people inside excluding the driver. But not enough affordable service for them

Need stringent enforcement

18 passengers; Face covered; Conductor near rear gate; Passengers boarding from both gates
India’s 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’s inherent advantage
Change in walking and driving trips observed in India: An opportunity

Post lockdown all trips reduced drastically; But walk trips increased and exceeded motorised trips

Source: Apple Mobility Trends Report (from January 13th, 2020 till April 30th, 2020)
Focus shifts towards reducing unnecessary travel

Strategies to reduce travel needs; to reduce pressure on public transport system

• 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
Reality check

Glimpse from ongoing CSE rapid perception survey in Delhi and selected NCR towns

Interim results from responses from middle and high income groups
-- How mode choices and commuting may change post lock down?
-- How vehicle ownership pattern may change?
-- Insight to shape future strategies

This will change for low income groups -- ongoing
Perception of middle and high income groups

**Age Group (in percentage):**

- 18-25: 15%
- 26-35: 57%
- 36-45: 13%
- 45-60: 13%
- Above 60: 2%

**Income Group (in percentage):**

- Above 1 lakh: 27%
- Rs 50,000 - 1 lakh: 38%
- Rs 25,000 - 50,000: 24%
- Upto Rs 25,000: 11%

**Living status:**

- 33% live alone
- 67% live with family

Note: Limitation of the survey was dependent on e-sharing platforms and hence internet platforms.
What matters most?

- Safety - the most important factor
- Comfort – emerges as a prime factor for higher income groups
- Cost of journey & Environmental conscious lower priority
- High income group accords highest priority to comfort

Note: The scope of this survey does not include low income groups. That is ongoing
Vehicle ownership

Vehicle Ownership

36% do not have any vehicle now and 28% of all respondents say--would like to buy a vehicle for safety

Those without vehicles

43% of those who do not own vehicles don’t wish to buy any vehicles in near future
Mode choices for daily trips shift substantially post Lockdown

The major difference between pre-lockdown and immediate six months post lockdown bus and metro trips decline by 27%, personal trips increase by 12%; Walk and cycle increase by 12%

In long term public transport trips recover and increase, car trips show declining trend

Public transport remains 31%
Strong support for good quality public transport

73% would like to shift to public transport (bus and metro) if high quality and meets global benchmark.

Connectivity emerges as the prime reason for choosing PT.
Prioritise infrastructure for walking, cycling and safe access to make this intent a reality

Accessibility to public transport a challenge

Disadvantage
- 39% have access to bus stop beyond 500 meters
- 69% have access to metro beyond 500 meters

Advantage for few
- 34% have access to bus stop within 200 mts
- Only 11% have access to metro within 200 mts
- IPT most accessible

Note: Data is perception based as reported by respondent; Includes NCR towns
During six months post lockdown distance of work trip will influence mode choice

**Pre-lockdown**

- Trip distance 5 – 10 km
  - Bus: 13%
  - Cab: 9%
  - Car: 30%
  - IPT: 2%
  - Metro: 14%
  - Two-wheeler: 7%
  - Walk & NMT: 14%
  - Car pool/Office cabs: 7%

- Trips below 5 km
  - Walk and NMT: 43%
  - Car: 14%
  - IPT: 10%
  - Metro: 16%
  - Two-wheeler: 7%

- Long Trips above 10 kms
  - It was found that metro is a predominant choice for longer trips beyond 10 kms.
  - Pre lockdown this share was almost upto 50 percent trips which decline by half post lockdown while car trips increase by similar measure.

**Scenario I**

- Intent to use in 6 months post lock

  - Trip distance 5 – 10 km
    - Cab/Taxi: 13%
    - Car: 10%
    - Car pool/Office cabs: 15%
    - IPT: 8%
    - Metro: 17%
    - Two-wheeler: 7%
    - Walk & NMT: 14%

  - Trips below 5 km
    - Walk and NMT: 43%
    - Cab/Taxi: 14%
    - Car: 16%
    - IPT: 10%
    - Metro: 16%
    - Two-wheeler: 7%

**5-10km distance**

- Use of cars increase from 20% to 33%
- Metro decline from 30% to 10%
- IPT increase from 10% to 15%

**Below 5km distance**

- Walk and NMT – increase from 14% to 43%
- Car reduce from 23% to 16%
- Metro reduce from 16% to 5%
Reduce need to travel

Opting for alternative methods of working

- Flexible timings: 34%
- Prefer to work from office: 54%
- Work from home: 12%

How activity pattern may change

- Social & Recreational trips: 14% continue as usual with restrictions, 6% manage through online apps, 5% reduce, 25% stop, 5% this trip might increase post lockdown
- Essential Purchase: 51% continue as usual with restrictions, 5% manage through online apps, 28% reduce, 25% stop, 0% this trip might increase post lockdown
- Other shopping: 42% continue as usual with restrictions, 5% manage through online apps, 16% reduce, 27% stop, 10% this trip might increase post lockdown
- Medical: 65% continue as usual with restrictions, 14% manage through online apps, 16% reduce, 14% stop, 0% this trip might increase post lockdown

- Essential purchase and Medical not change much
- Preference for online purchase increase substantially
- Social and recreational trips to reduce drastically
Global learning curve:

Globally most cities did not lockdown; public 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)

Huge economic impact

- 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….
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).

- **Pop up temporary bike lanes** -- repurposing traffic space

- **Big investment planned to create bike lanes** (Australia, California, France, etc); --- New York - ambitious plan to reconfigure road space for walking and cycling;

- **Cities banning parking in front of shops** to increase standing queue space for customers…. And more

Pop up bike lanes
“London Streetscape” program

10 fold increase in cycling and 5 fold increase in walking during pandemic

- Mayor plan to fast track change by transforming streets with wider footpaths, pedestrianisation of streets and reclaim parking spaces

- Repurposing traffic lanes and parking spaces for temporary bicycle lanes, pedestrianising school streets, improve pedestrian lights.

- Bicycle-sharing system free for health workers; Extensive cycling network mapped out; newer car free zones identified

- Waterloo bridge restricted to only walking, cycling.

- Proposed to increase congestion charging from June 22 (increase from 11.50 UK pounds to 15 UK pounds).

- Promote work from home and related strategies.
How do we move forward towards new normal?

- Rebuild public confidence in safe public transport
- Design 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.
- Need emergency scaling up of protected footpaths and cycle lanes with flexible barriers to enable all income groups to access workplace and meet other needs within a reasonable radius of residence. There is growing interest in contact free and safe commuting.
- Need a strategy to leverage emergency measures adopted like work from home, staggered timing and roster-based attendance etc, to cut down unnecessary travel and reduce pressure on strained public transport.
- Implement long term strategies to augment integrated public transport and services.
- What can we learn from other global cities?
Thank You!

Stay Mobile Stay Safe!