

First India-Africa Dialogue and Media
Briefing on Air Quality and Mobility

Designing cities for sustainable transport



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What is a city



How are cities perceived- by users



- **Congestion**
- **Parking**
- **Safety**
- **Comfort**
- **Untidy**
- **Unmanaged**

How are cities perceived- by planners



What is the context of Urban Mobility Crisis and air pollution?

Is it a local problem?

Is it a problem within project boundary?

Is it the complex problem of the Urban Environment- Both Micro and Macro?

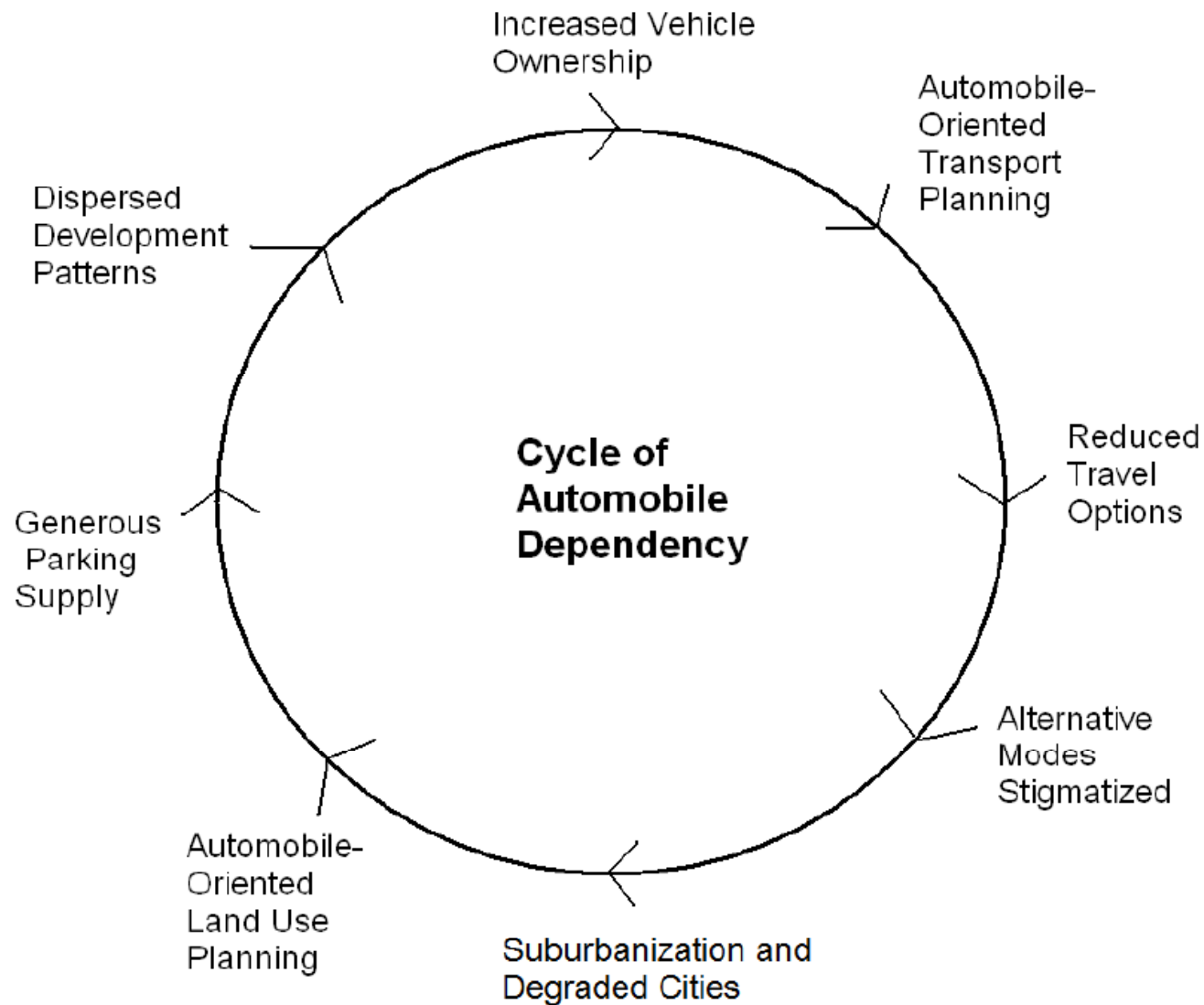
If congestion is a problem



Flyovers and expressways are not the solution



Automobile Dependent Planning



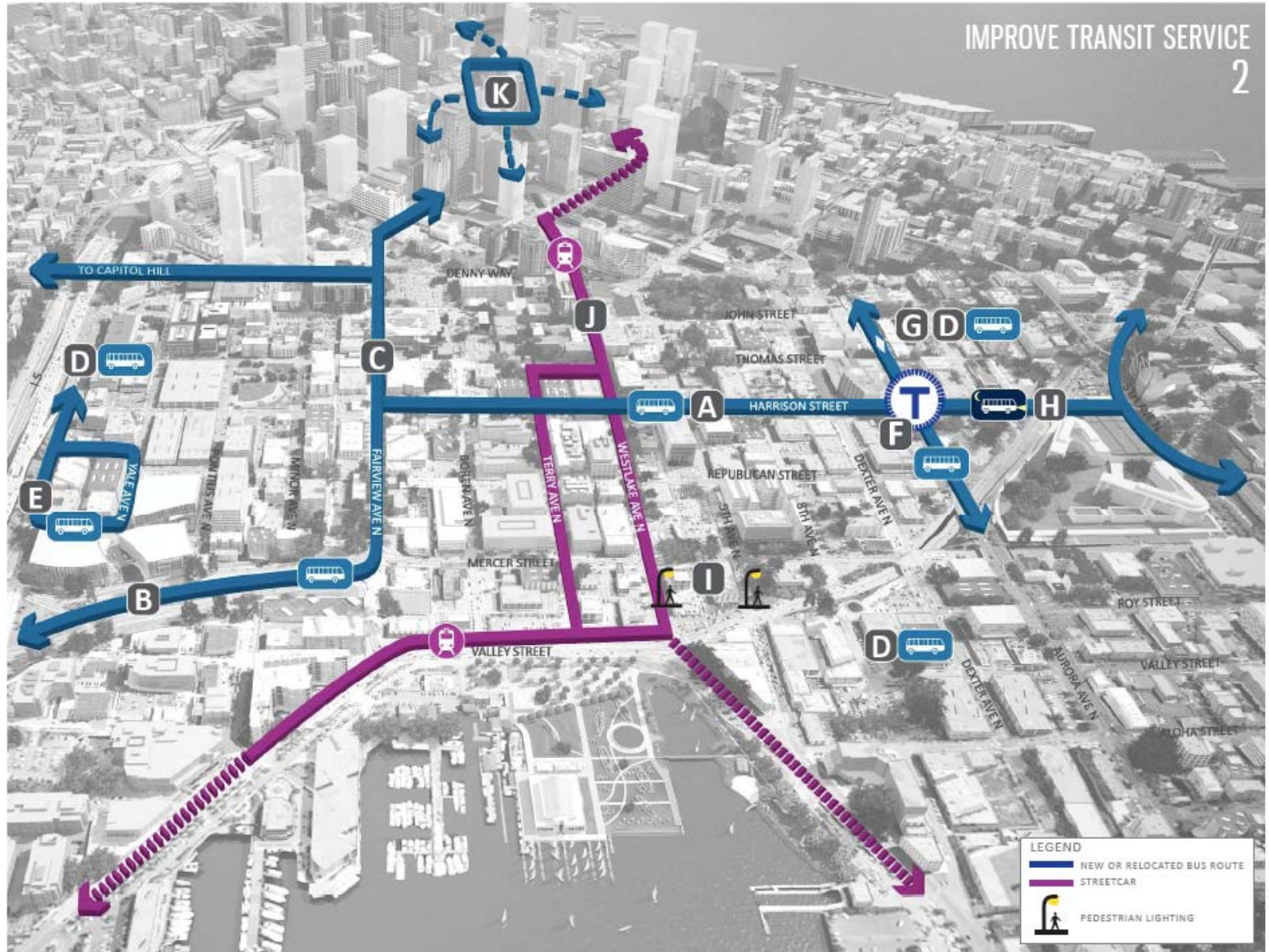
This figure illustrates the self-reinforcing cycle of increased automobile dependency and sprawl.

If congestion is a problem



Mobility Planning is a solution

- A** Provide east-west transit service connecting Uptown and Capitol Hill through the heart of South Lake Union on Harrison Street when the street grid is connected.
- B** Increase transit service through South Lake Union by rerouting select I-5-to-Downtown routes to the Mercer Street ramps and Fairview Avenue N.
- C** Improve transit reliability and operating conditions on Fairview Avenue N to entice more transit to route through the South Lake Union neighborhood.
- D** Identify acceptable bus layover locations in the two urban centers in exchange for extending bus routes to these neighborhoods.
- E** Work with Sound Transit to have buses that now layover in the SLU neighborhood to make stops in the neighborhood as part of their route.
- F** Concentrate transit service near the future RapidRide Station on Aurora Ave N (to be renamed 7th Ave N), between Harrison and Thomas Streets.
- G** Add transit lanes on 7th Avenue N that connect to the Wall Street/ Battery Street transit lanes.
- H** Increase nighttime and weekend service to better serve events at the Seattle Center and Lake Union Park, as well as the growing resident population in South Lake Union and Uptown Triangle.
- I** Improve pedestrian lighting and amenities such as transit information kiosks at and approaching transit stops and stations.
- J** Support additional Streetcar routes. The highest priority would be to connect the First Hill Streetcar line to South Lake Union and the Seattle Center.
- K** Improve ability to use transit to circulate among the downtown neighborhoods.

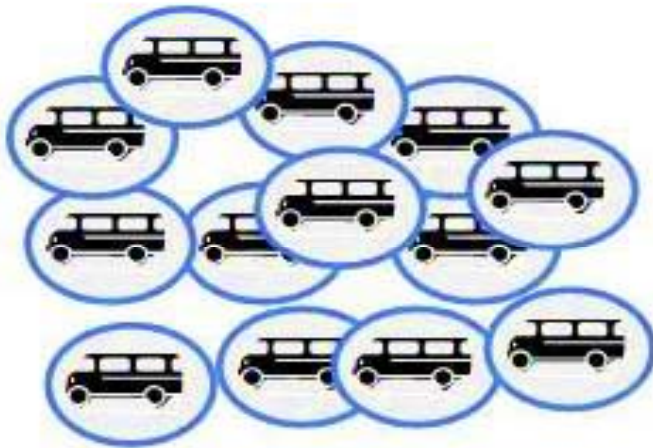


Understanding Relation of city plan with Air Pollution and Mobility crisis

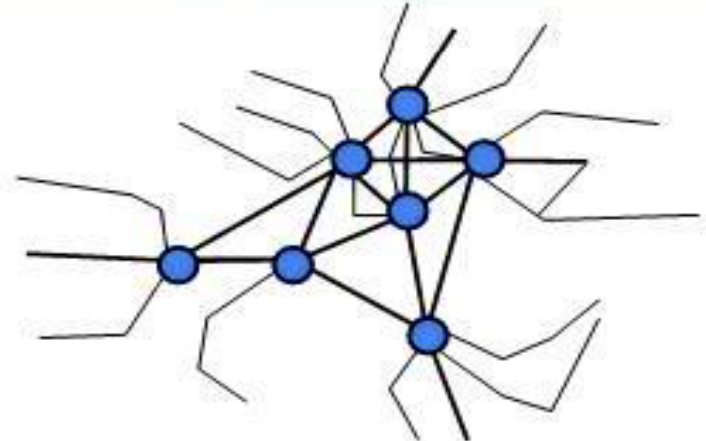
City Transportation Structure



- Multiple operators
- Informal routes/itineraries for many
- Concentration on main corridors



Highway Based



- Integrated operations
- Fewer operators
- Increased capacity

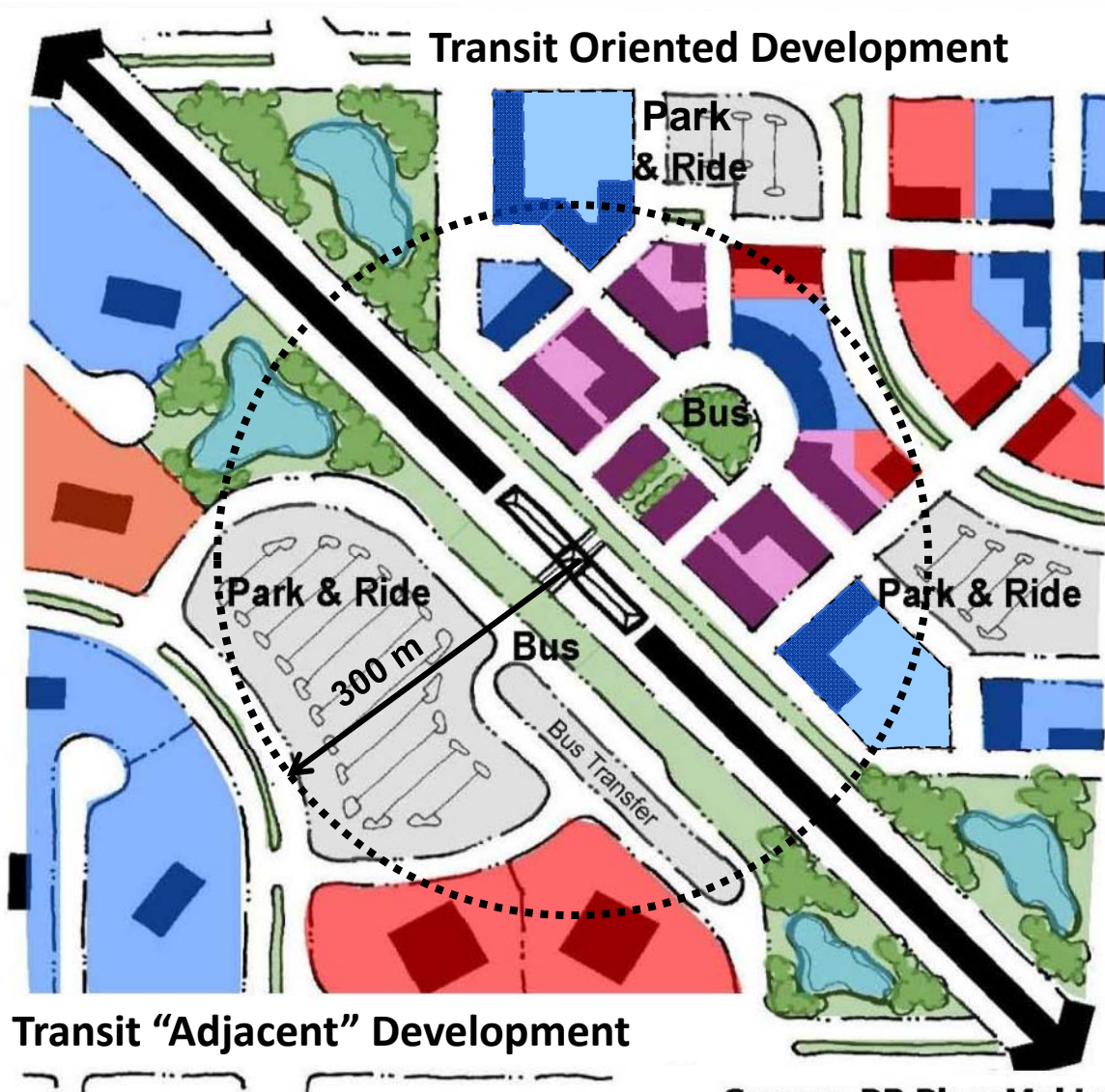


Network Based

Land use structure of a city

TAD:

- Separates the Community from the Station.
- Auto-oriented environment.



Source: PB PlaceMaking

Understanding Principles of sustainable planning

Redefining mobility



Image Source: Internet

Plan for Movement of people and not machines

'MOBILITY OF PEOPLE'

Design Transport Infrastructure for;



Pedestrians



Cyclists



Intermediate Public Transport



Public Transport and



Cars



Sustainable Transport System

- 1. Equitable**
- 2. Energy Efficient**
- 3. Environment friendly**
- 4. Affordable**
- 5. Safe**

Low Carbon Footprint Development
Transit Oriented Development
Smart Urbanism
New Urbanism
Sustainable City

It is a city or its part that **induces people to prefer the use of public transportation, walking & cycling.**

The Guiding Principles are to:

1. **Reduce private vehicle dependency** and induce public transport use – through design, policy & enforcement measures.
2. **Provide Public Transport access to maximum number of people** – through densification and enhanced connectivity.

Sustainable Urban Development

1

Landuse-Transportation
Synergy:



2

Public Transit System:
Provision & Funding



3

Discourage Private Car



4

Equitably distribute
Public realm



GOALS:

- **High Quality, Speed & Comfortable Public Transportation**
- **Efficient Feeder Network.**
(Intermediate Para Transit, more feeders, Dedicated HOV lanes)
- **Walking-Cycling Connectivity**
- **Multi Modal Integration.**
(Facilitate easy and efficient transfers between various modes)

2

Public Transit System: Provision & Funding



3

Discourage Private Car



4

Equitably distribute Public realm



GOALS & STRATEGIES:

- **Revise Parking Laws** to delink it from landuse and link it to spatial proximity to public transport facilities.
 - low/ expensive parking close to transportation hubs
 - enforcement of cycle parking provisions.
 - congestions pricing in areas well served by public transport.
 - park and ride/ park and walk policies
 - shared parking options
- **HOV lanes** in street design standards to encourage carpooling
- **Mega carpool scheme** (CoT)

2

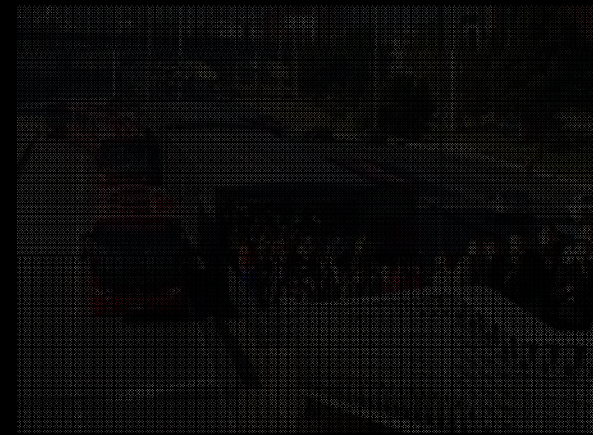
Public Transit System:
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Landuse-Transportation
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Public Transit System:
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Equitably distribute
Public realm



- **Provide for Dedicated Infrastructure for Public Transport** to ensure priority in movement for Public Transport.
- **Provide ample dedicated space for Non Motorized Transport** to encourage walking and cycling
- **Limit the space for Private Vehicles** to discourage people from using Personal Motor vehicles.
- **Provide High Density Compact Development** to ensure maximum people stay and work in close proximity of Public Transport systems.

Opportunity in *African* Cities

Very High percentage of people walk and use Public Transport



Ample opportunities to Improve Public Transport, walking and cycling infrastructure



Existing developments which encourage Live and Work Developments



Existing Compact High Density City Centers

