



CONTINUITY & CHANGE IN URBAN TRANSPORT DEVELOPMENT ARENA- A CASE OF INDORE

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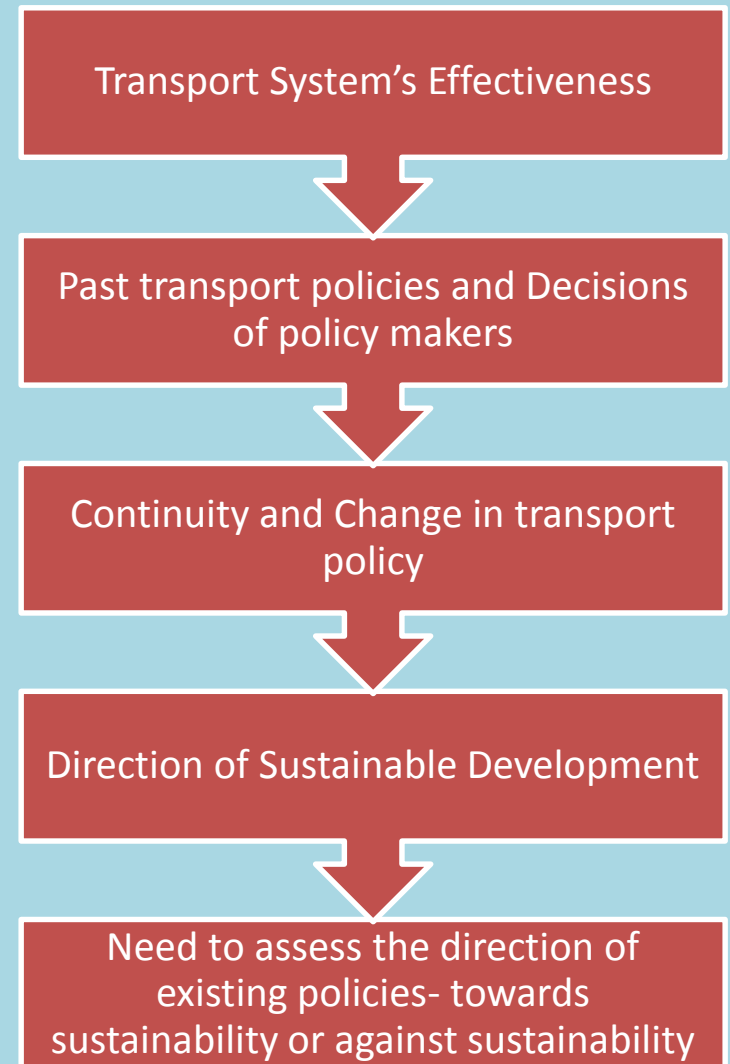


CONTENTS

1. Need of the Study
2. Aim & Objectives
3. Methodology
4. Literature Review
5. Introduction to Indore
6. Continuity and change in timeline
 - Role of actors, institutions and politics
7. Conclusion
 - Transport Trajectory
 - Windows of opportunity
 - Direction of Sustainability

NEED OF THE STUDY

- City's efficiency depends directly on the effectiveness of transport systems.
- Policy decisions are affected by external factors and involve multiple actors like political decision- makers, policy makers, civic action groups, representatives of non- governmental organizations, media, administrators and institutions.
- Continuity and Changes in the policies and programs go hand in hand with policy implementation and affect the urban transport development which directly affect the direction of city's sustainable development.
- Thus, there is an emerging need for cities to assess their position and travel direction of their existing policies in order to move towards sustainable transport development.



FOCUS OF STUDY

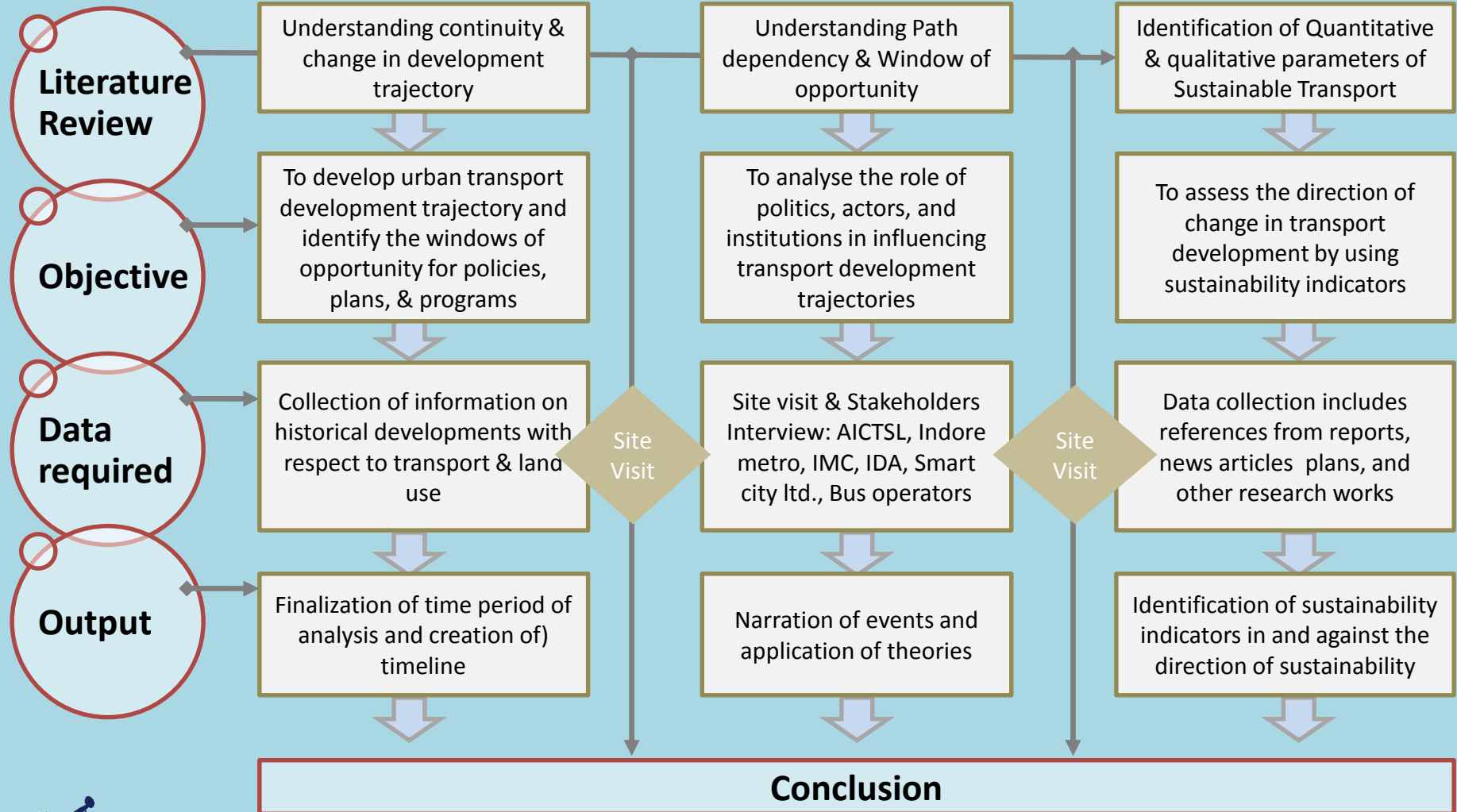
AIM

This research aims to trace the continuity and change in policies, plans, and programs, and to analyse the direction of urban transport development with respect to sustainable transportation by taking a case of Indore.

OBJECTIVES

1. To develop urban transport development trajectory and identify the windows of opportunity for policies, plans, and programs
2. To analyse the role of politics, actors, and institutions in influencing transport development trajectories
3. To assess the direction of change in transport development by using sustainability parameters

METHODOLOGY



CONTINUITY & CHANGE

CONTINUITY

- An unbroken and consistent existence of policies, programs and plans or operation of the transport system in the timeline of transport development

CHANGE IN URBAN TRANSPORT SYSTEM

- A significant and dramatic difference or discontinuity in historical events known as “Turning Point”
- No distinctive innovation phase
- Influenced by external factors

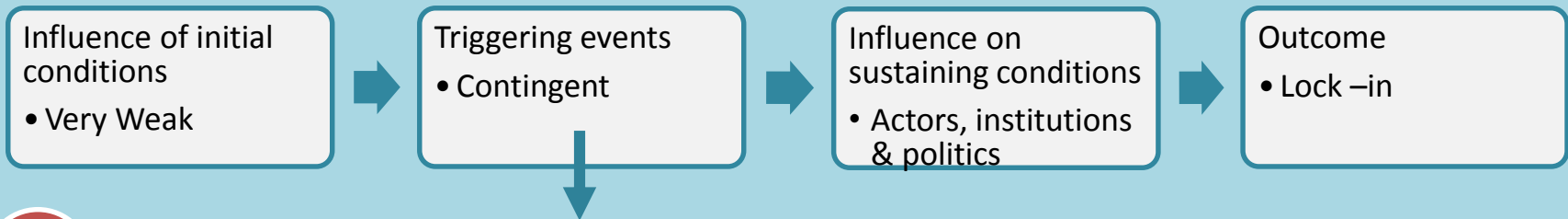
CHARACTERISTICS OF CHANGE

<i>Rate of Change</i>	<i>Process of change</i>	<i>Direction of change</i>	<i>Extent of change</i>	<i>Outcome of change</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Rapid	<input type="checkbox"/> Incremental	<input type="checkbox"/> Positive: Sustainability focused	<input type="checkbox"/> Local	<input type="checkbox"/> Substantial effect:
<input type="checkbox"/> Gradual	<input type="checkbox"/> Decremental	<input type="checkbox"/> Negative: Private vehicle focused	<input type="checkbox"/> Regional	<input type="checkbox"/> Relatively permanent
<input type="checkbox"/> Erratic		<input type="checkbox"/> Neutral: General growth trend	<input type="checkbox"/> National	<input type="checkbox"/> Widespread
			<input type="checkbox"/> Global	

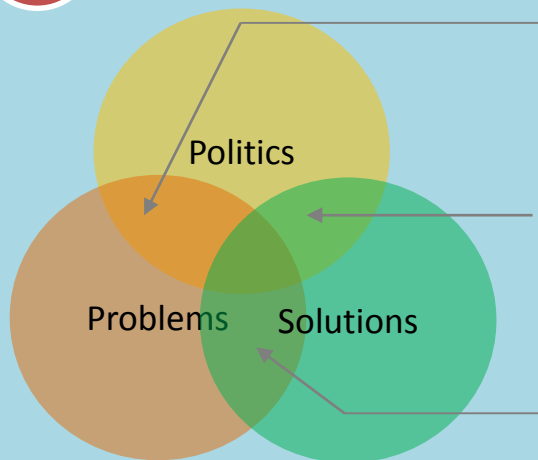
PATH DEVELOPMENT & DIVERGENCE

1 PATH DEPENDENCY

Path developed along a specific path and future developments are locked in along that path.



2 WINDOW OF OPPORTUNITY



Coalition Building

Sustains attention of problems

Policy Learning

Knowledge about the issue

Agenda Setting

Focusing on policy issues to get them on policy agenda

- Change in **political or administrative leadership**
- **Institutionalized** events
- **Contingent** events
- **Opposition** to an existing policy network
- **Same beliefs** of elected urban or state local bodies

SUSTAINABILITY IN TRANSPORTATION

In the Direction of Sustainability

Economic Sustainability

- Plans influencing urban forms
- Fare revisions

Environmental Sustainability

- Energy choice for PT & IPTs
- Initiative to promote NMT

Social Sustainability

- Political acceptance
- Public acceptance
- Leadership

Transportation effectiveness

- Planning & implementation of transport plans
- Technology adoption
- Investment for PT
- Recognition to PT

Against the Direction of Sustainability

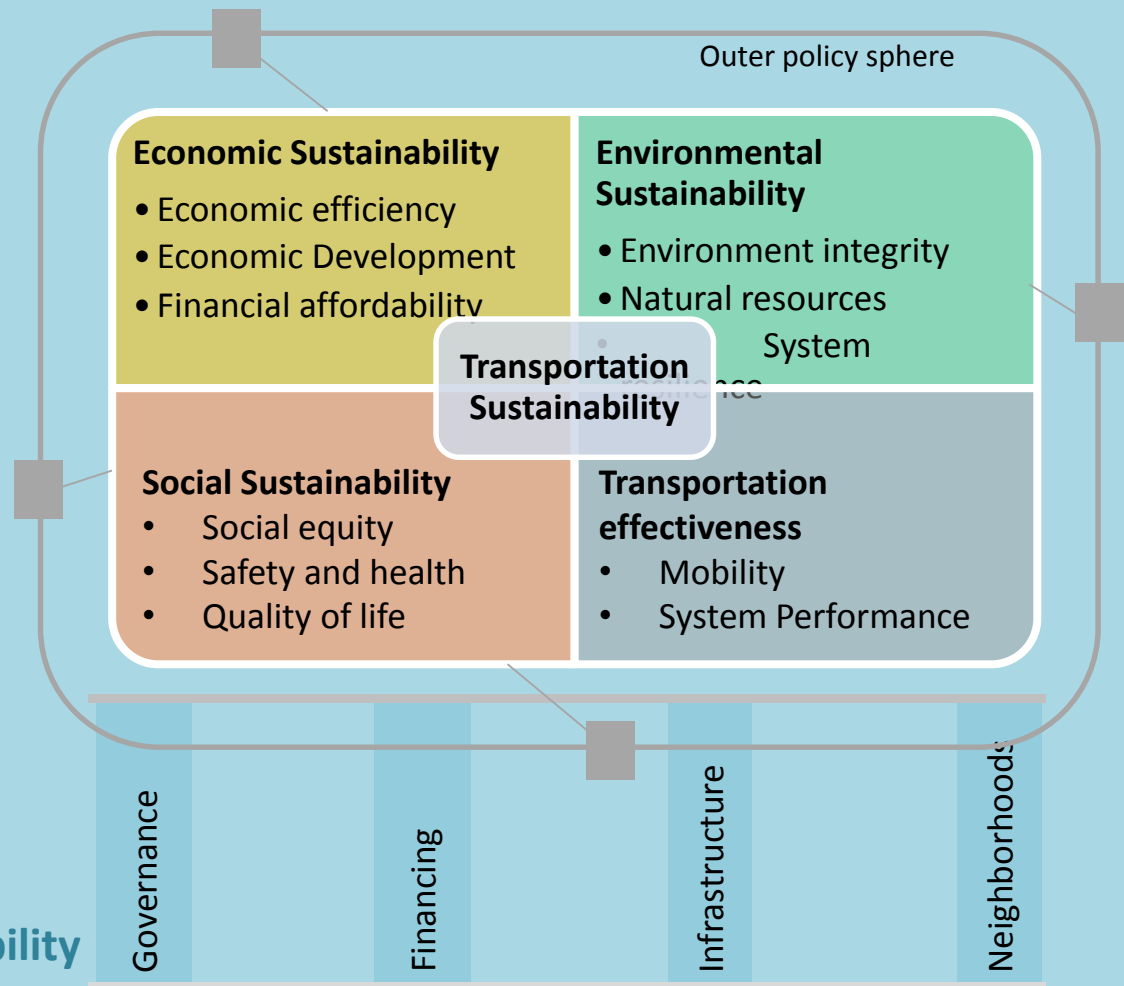
Congestion

Accidents

Investment in roads & flyovers construction

Vehicular growth

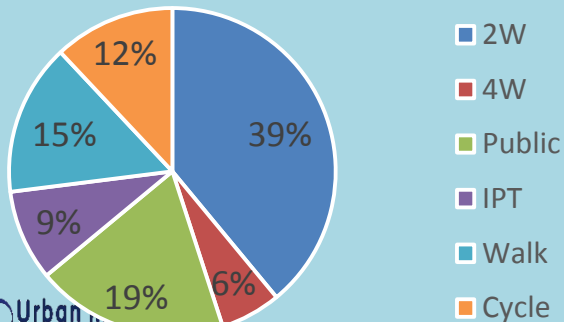
Increase trip lengths



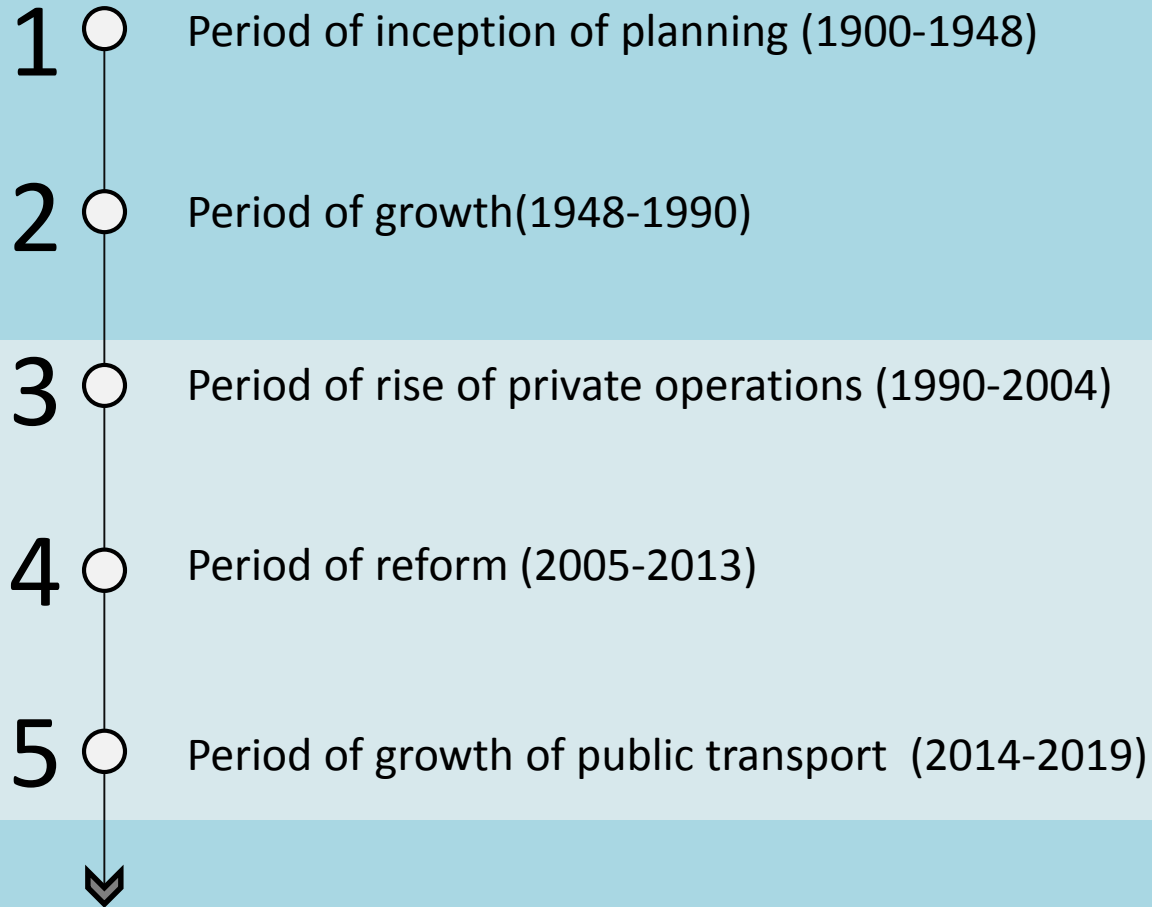
INTRODUCTION TO INDORE

- Indore is **largest** city of M.P.
- **'Mini Bombay'**
- **Educational & Industrial** hub
- Strong **political constituency**
- Ranks 14th among million plus cities (as per census 2011)
- **10** Census towns + **7** Out growths
- **19** Zones & **85** wards
- IPA **2.17** million **4534** per/sq. km
- IMC **1.96** million **15315** per/sq. km
- Annual Growth rate **1.97%**
- IPA **505.25** sq. km
- IMC **130.17** sq. km
- **1911 Km** Road Network
- Trip Length **6.18** km

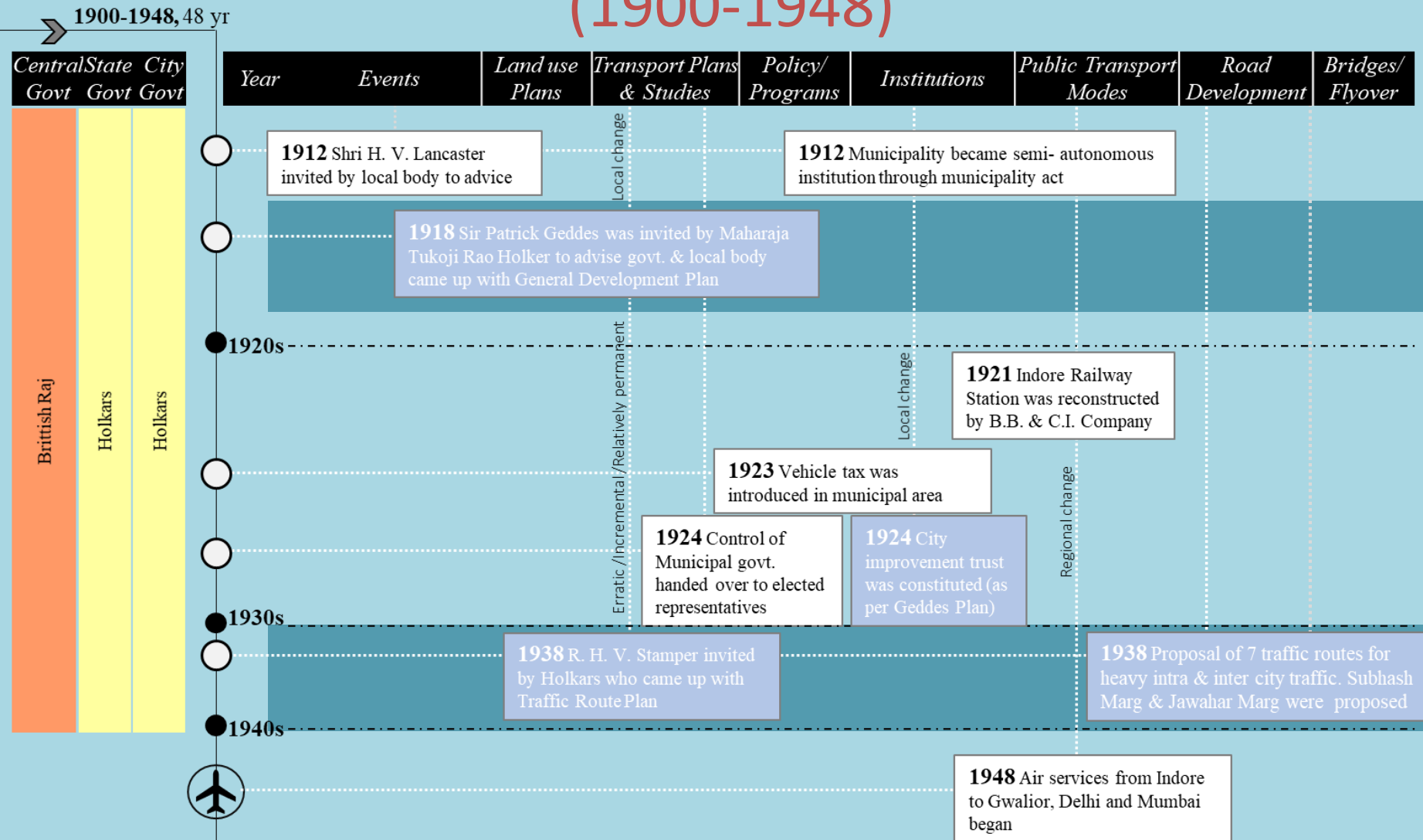
Mode share



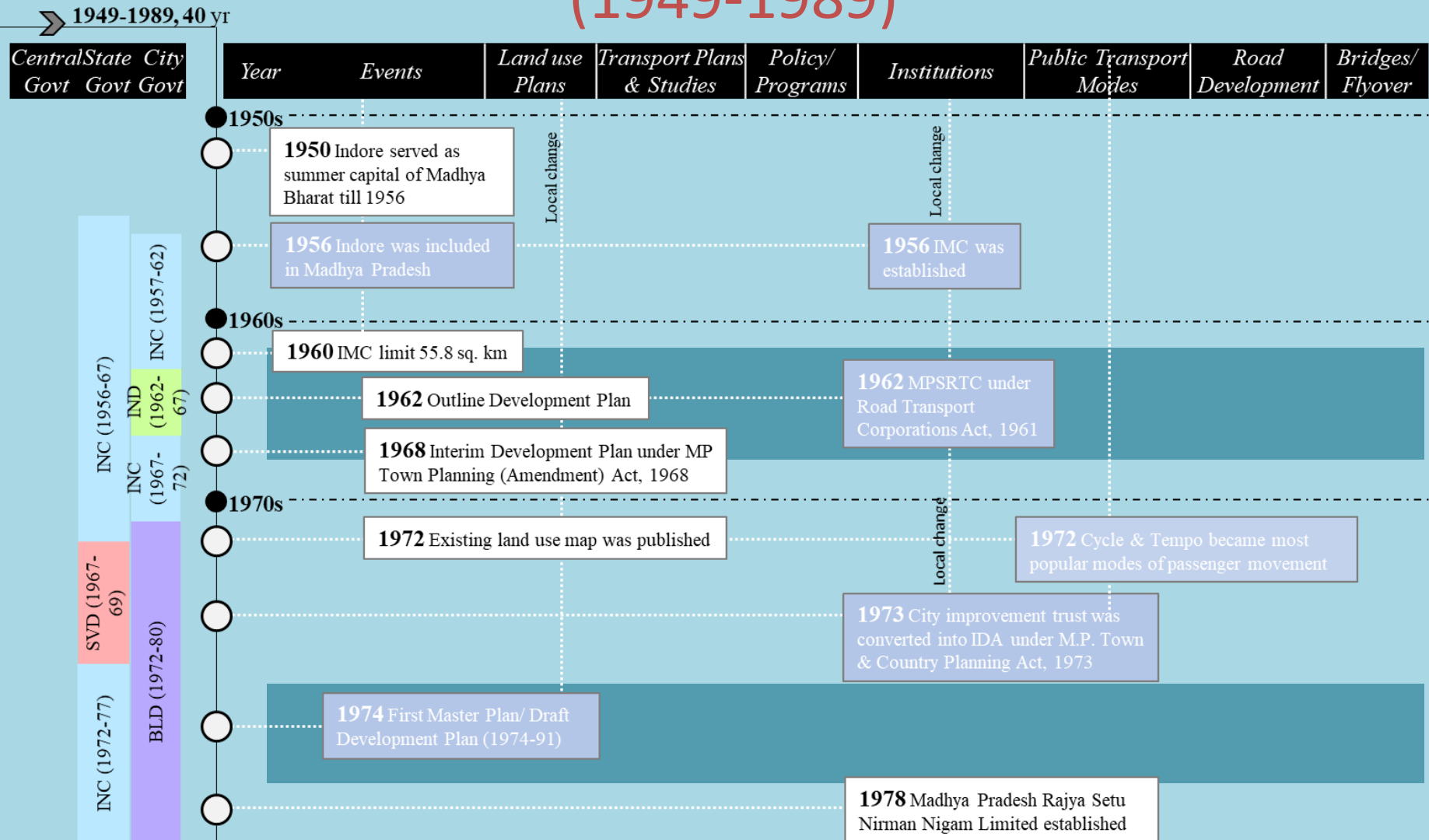
CONTINUITY AND CHANGE IN TIMELINE



1. PERIOD OF INCEPTION OF PLANNING (1900-1948)

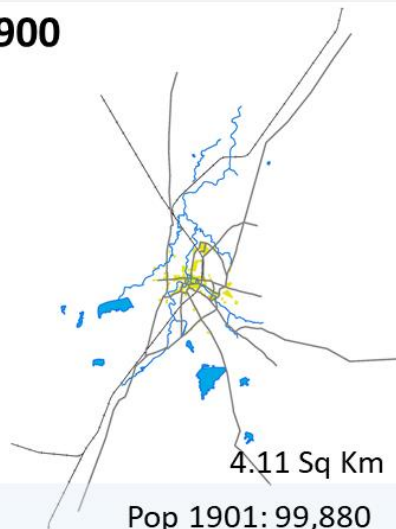


2. PERIOD OF GROWTH (1949-1989)

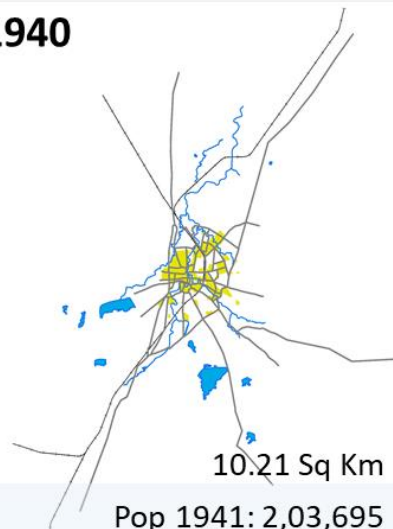


SPATIAL GROWTH

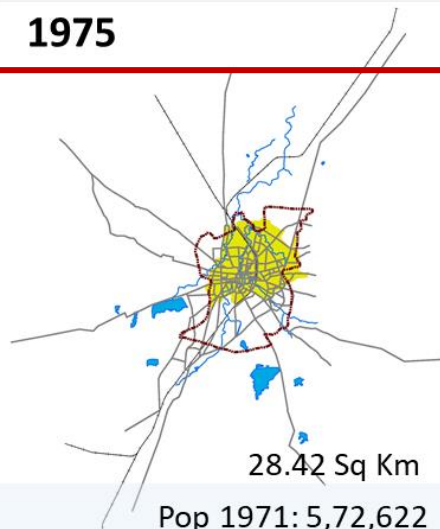
1900



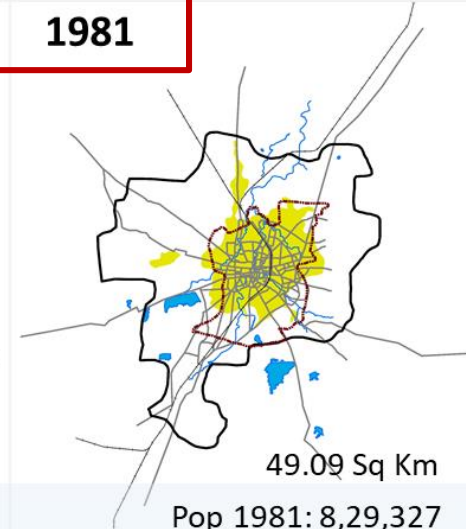
1940



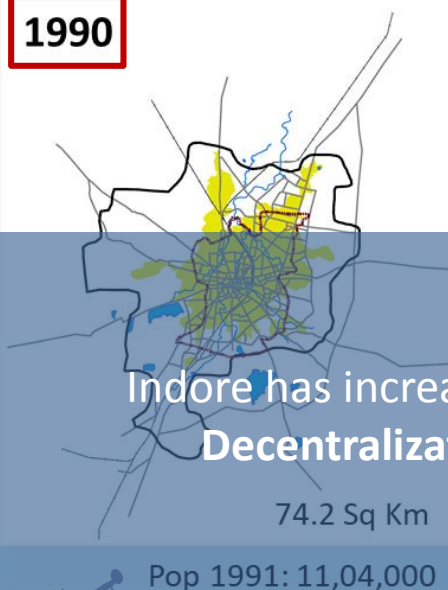
1975



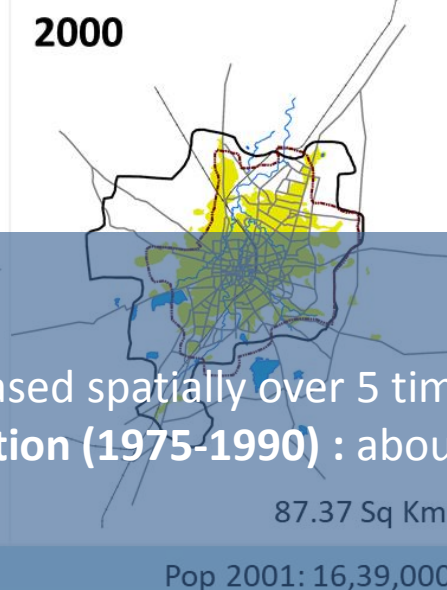
1981



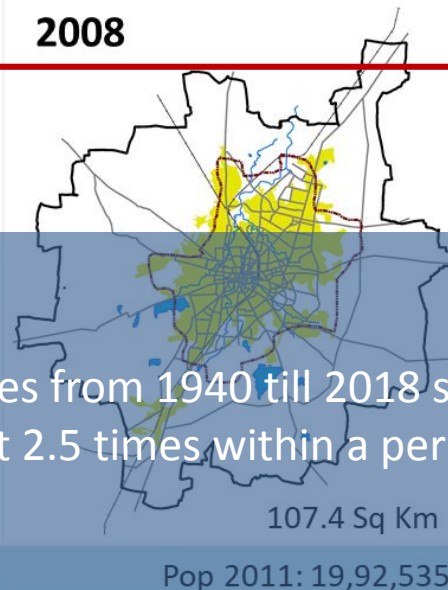
1990



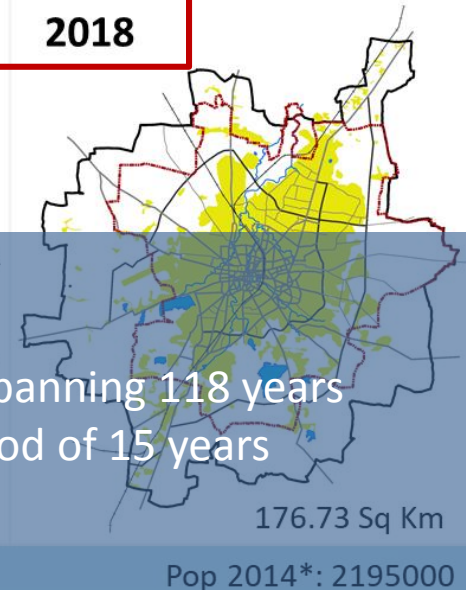
2000



2008

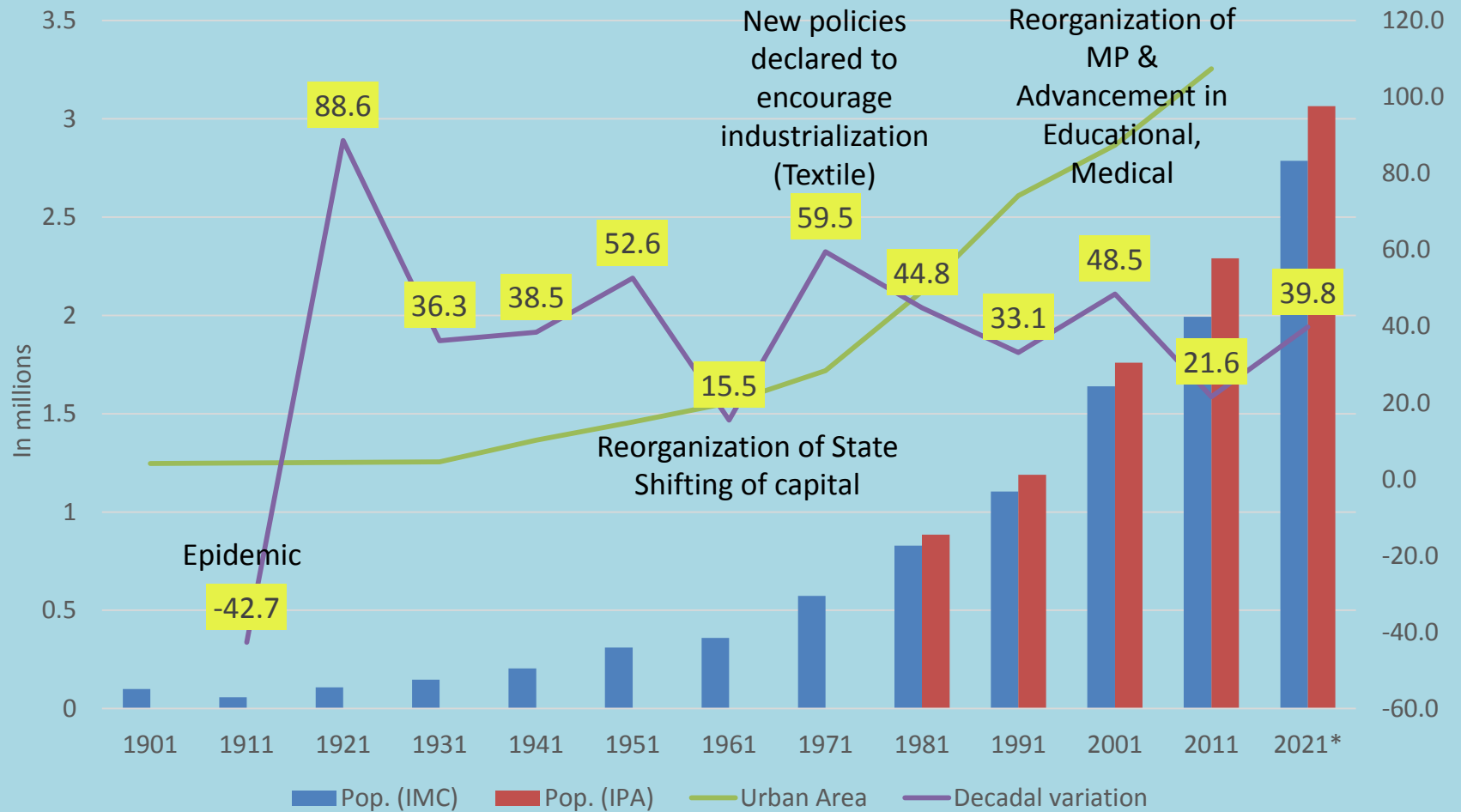


2018



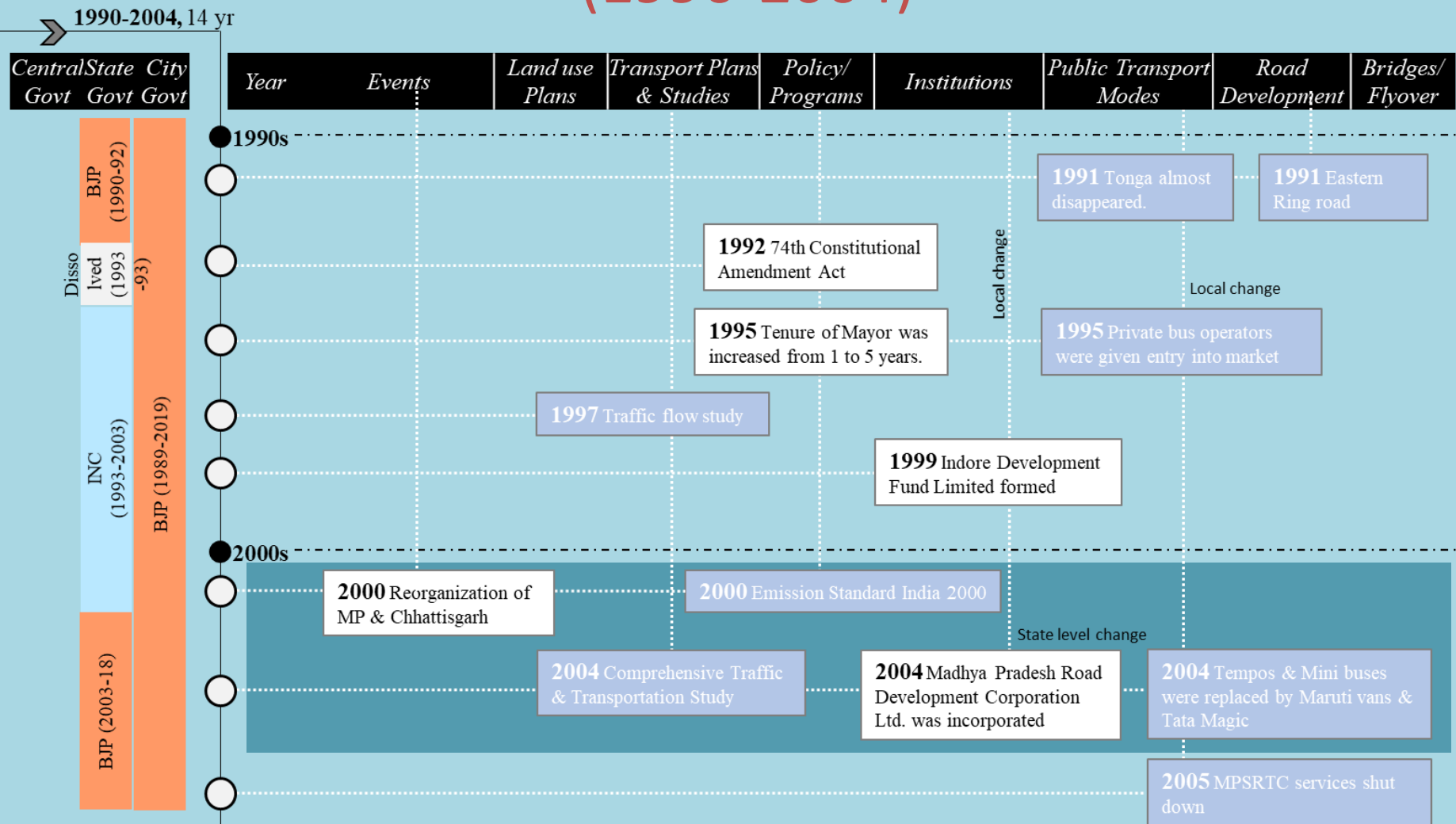
Indore has increased spatially over 5 times from 1940 till 2018 spanning 118 years
Decentralization (1975-1990) : about 2.5 times within a period of 15 years

POPULATION GROWTH



***27.85 Lakhs Projected population for 2021**

3. PERIOD OF RISE OF PRIVATE OPERATIONS (1990-2004)



PERIOD OF RISE OF PRIVATE OPERATIONS

SHUTTING DOWN OF MPSRTC (43 YEARS OF OPERATION)

Influence of initial conditions

- Condition of MPSRTC buses got degraded-
- State government sanctioned 250 cr. for improvement of the system

Triggering Events

- Break in continuity for funding to MPSRTC after 1995 & entry to private operators
- MPSRTC owned 4 factories, despite of that private company was given order to make bus structure
- Increasing financial burden on MPSRTC debt of Rs 800 crores

Actors/Institution

- Local political leaders owned private buses

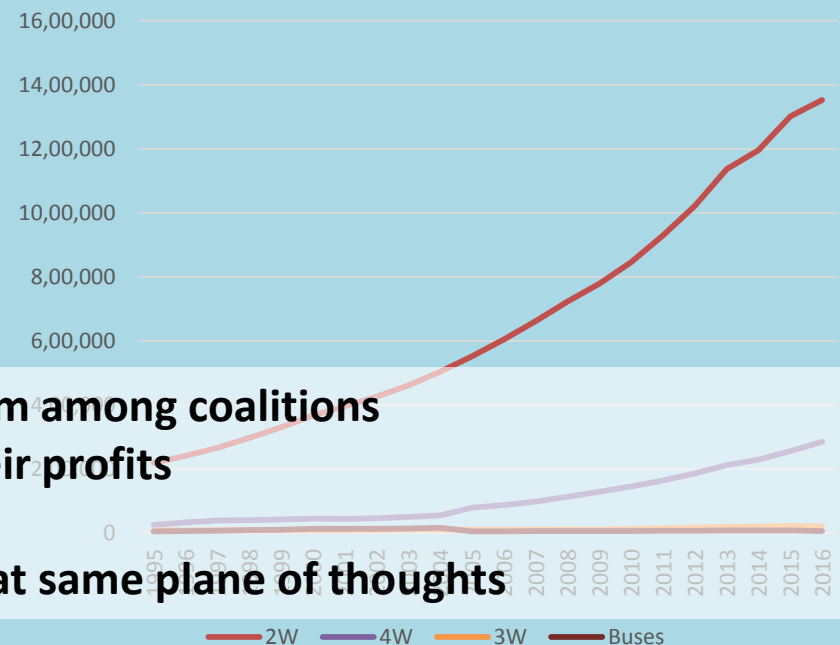
Political Scenario

- Political instability: Congress at State Level and BJP at city level

Outcome

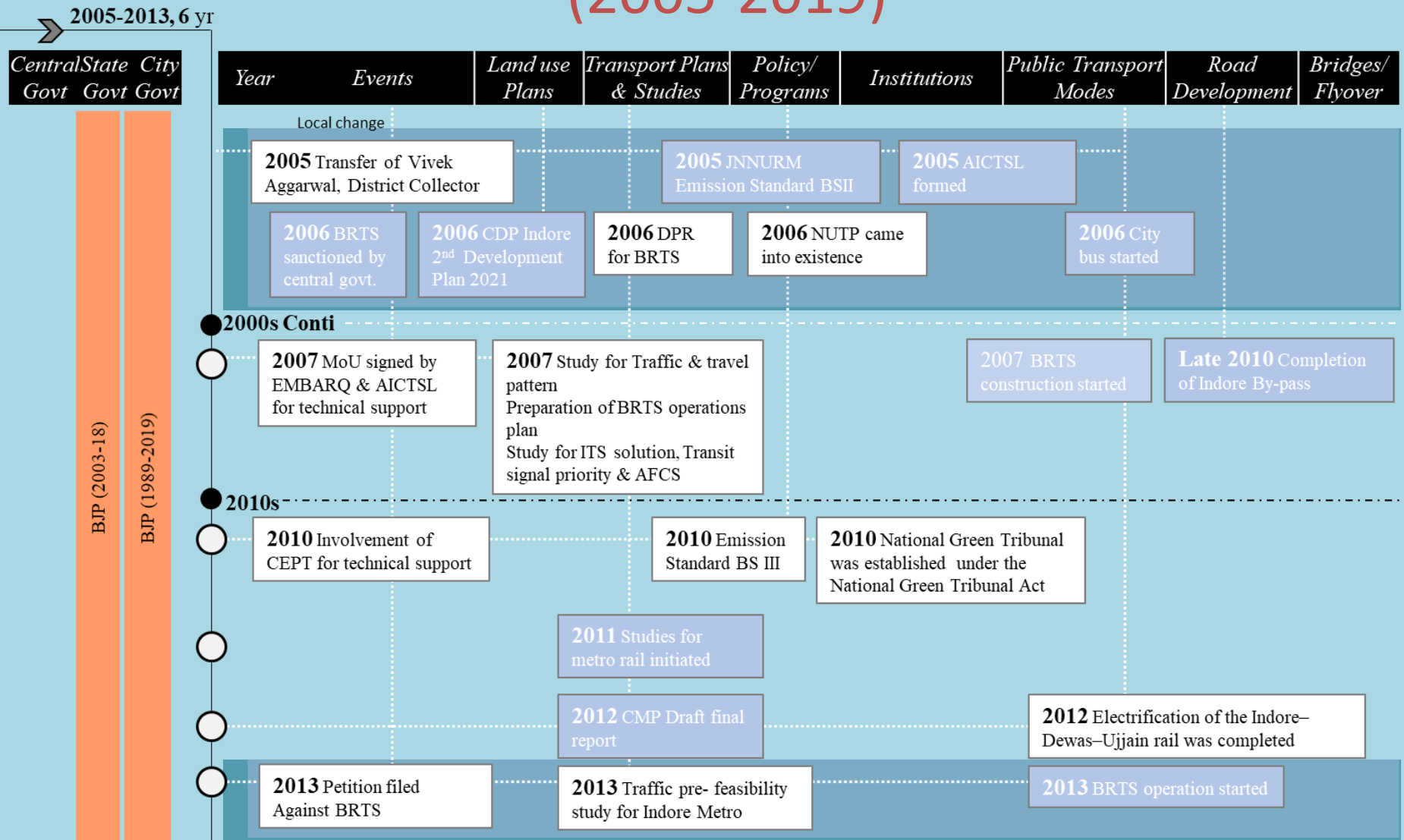
- Negative externalities:
 - Increase in number of accidents
 - Congestion on routes profitable to operators
 - Dependency on private vehicles triggered the already growing motorization

9% Avg growth rate of PV during (1995-2005)
Double the population growth rate

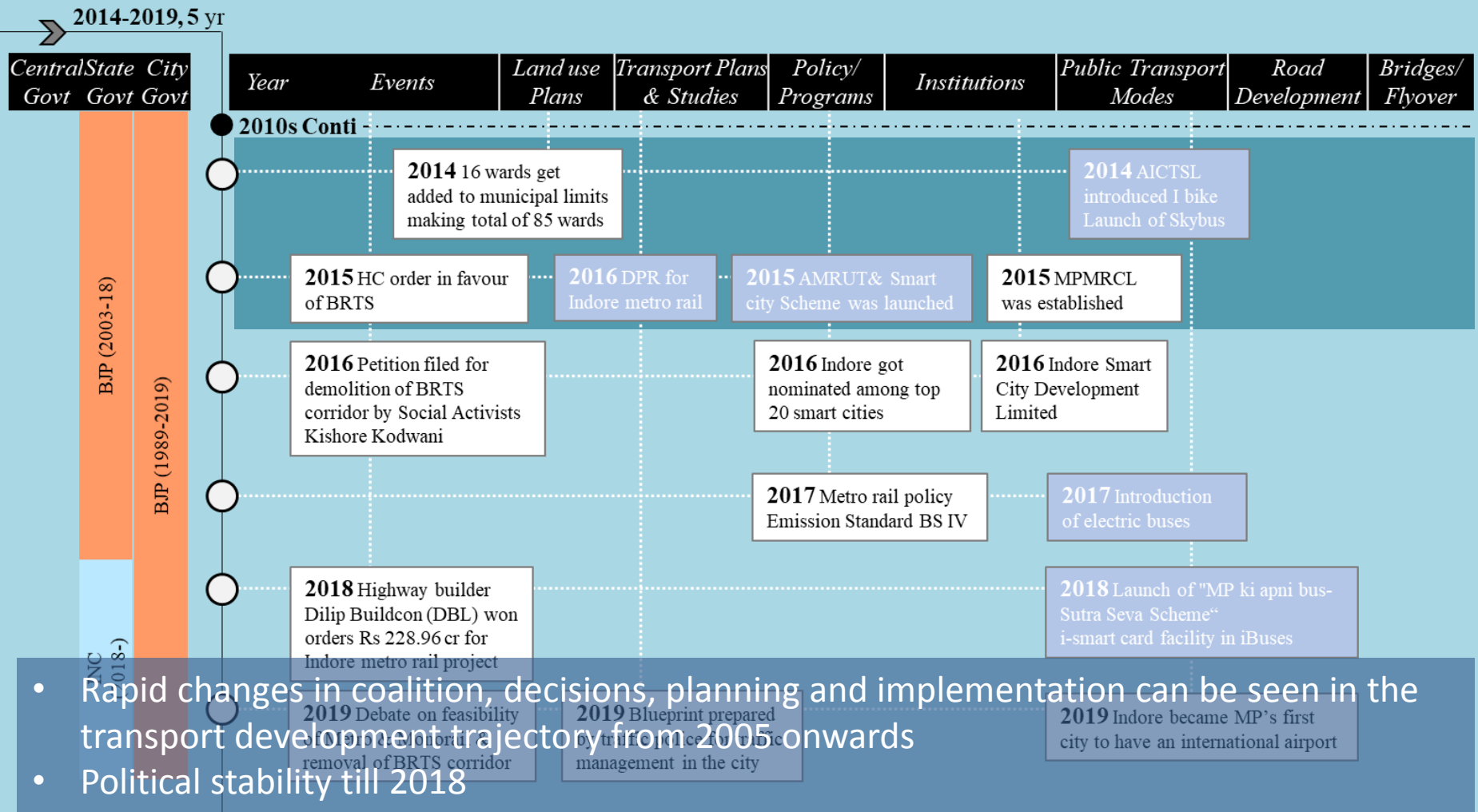


- **No agenda setting for improvement of system among coalitions**
- **Different coalitions/ actors were seeking their profits**
- **Beliefs did not match**
- **Lack of leadership who could pull everyone at same plane of thoughts**

4. PERIOD OF REFORM & GROWTH OF PT (2005-2019)



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4. PERIOD OF REFORM (2005-2019)

CITY BUS & BRTS

Influence of initial conditions

- Formation of AICTSL
- Policy learning: Cross-country analysis was by District Collector
- Failure of BRTS in Pune and Delhi & success of Ahmedabad

Triggering Events

- Transfer of District Collector
- Coalition with Joint Collector
- Funding from JNNURM

City Bus

Actors/Institution

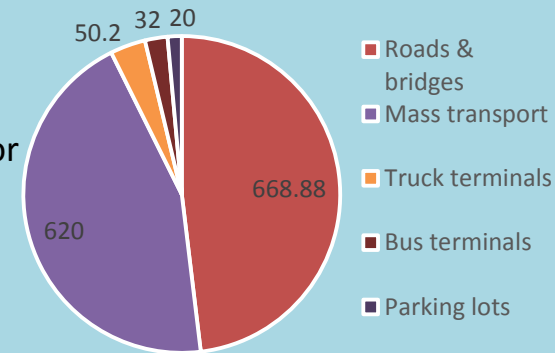
- First Coalition IMC + IDA formed AICTSL at 50% equal shares
- Second with IMC, IDA, Traffic police, IPTS operators and citizens groups & vision was framed

Political Scenario

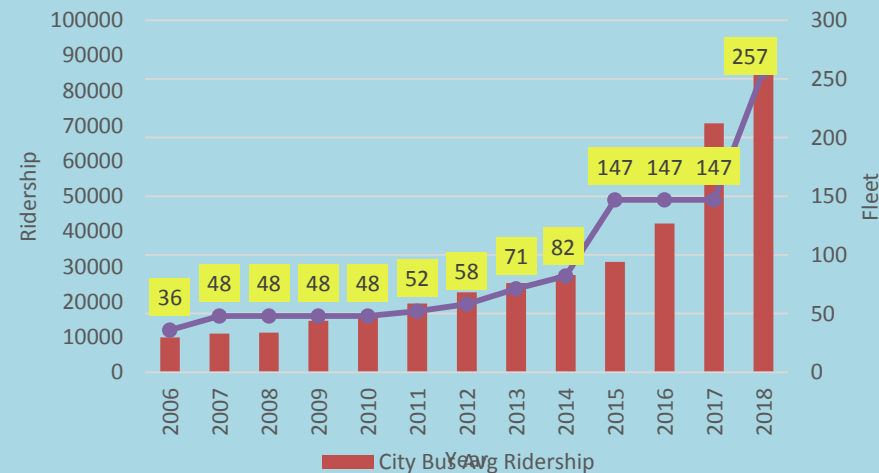
- Political disagreement over the livelihood of existing private bus operators
- Demand for routes: Political pressure for decision of routes depending upon the electoral profits

Outcome

- Recognition as **Indore Model (NCC)**
- Competition with the Tata magic, Maruti vans and Auto-rickshaws
- Demand for addition of new routes by people
- Operators were not willing to expand services other than profitable routes
- Launch of Sky buses on NCC model in 2014. Route premium of intercity services are cross-subsidized for VGF of intra city bus services.



Source: CDP 2006



Source: AICTSL

4. PERIOD OF REFORM (2005-2019)

BRTS

Actors/Institution

Contrasting beliefs in coalition & response acc. to their past experiences

Political Scenario

Conflict in coordination among different coalitions

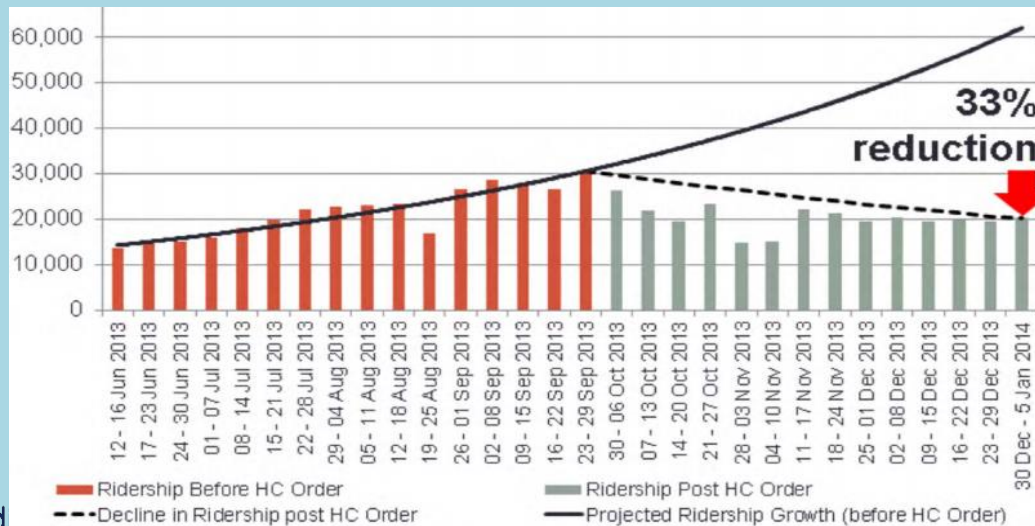
- BRTS construction overlapped with the proposals of CDP
- Construction of bus stations also got stretched for a year

Lack of acceptance among public for a radical change

- **Citizens** : Resistance from society for land acquisition
- **Citizens & Media**: Delay in road widening

High Court Jurisdictions

- HC order permitted BRTS trial runs but it allowed PV to enter BRTS lane
- PIL filed to National Green Tribunal against BRTS on the use of diesel buses



Source: AICTSL

District Collector

Joint Collector

AICTSL
(IMC + IDA)

Mehta &
Associates

SGA

TRIPP

EMBA
RQ

CEPT

NGO

High Court

Media

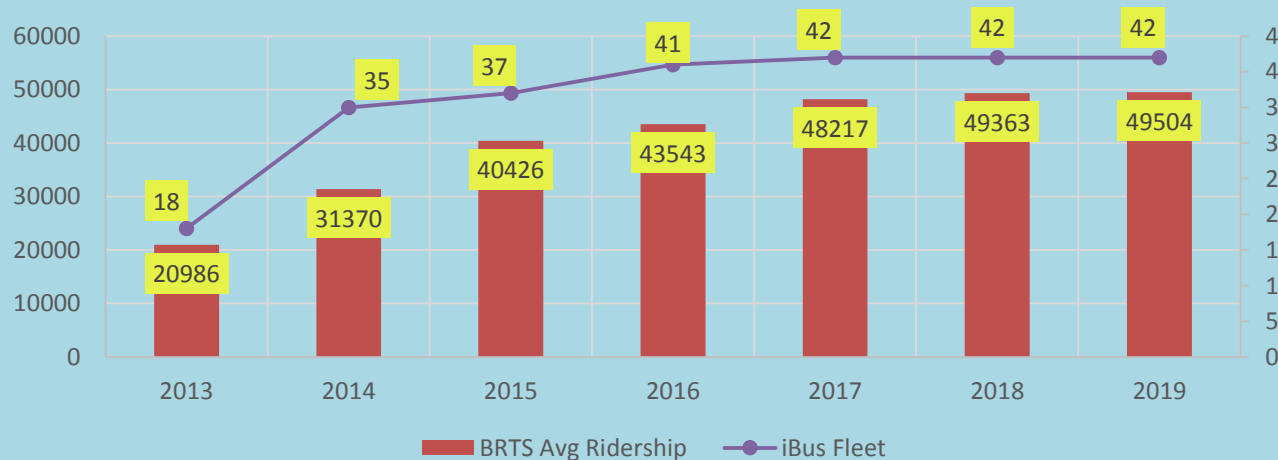
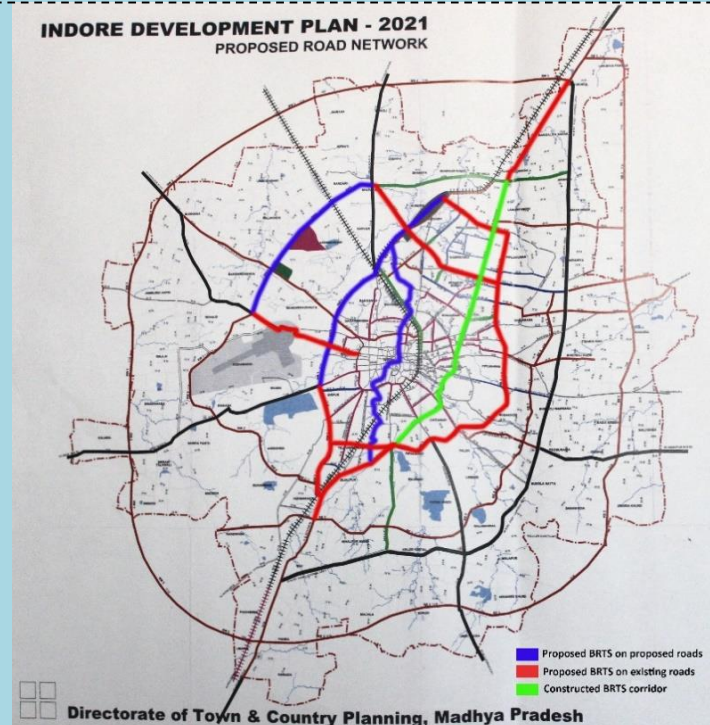
Citizens

4. PERIOD OF REFORM

Outcome

	Proposed	Actual
Network length	120.46 km (23.8 km)	11.4 km
Routes	6	1
Total cost	Rs 868.15 Cr	Rs 98.45 Cr
Bus fleet	50 buses	18 buses
Avg. Daily ridership	70,000	21,000

Source: DPR ITMS, Traffic Mobility Solutions, AICTSL, Tiwari, G., & Jain, D. (2010). BRTS Projects in Indian Cities, Indore Development Authority



Source: AICTSL

4. PERIOD OF REFORM (2005-2019)

● Metro rail

Influence of initial conditions

- Proposals in CTTS
- IMC and IDA approached L&T for feasibility study of monorail Rs 6310 Cr for 31.55 kms 30 Stations
- the state government approached DMRC for feasibility study of metro

Triggering Events

- State legislative elections

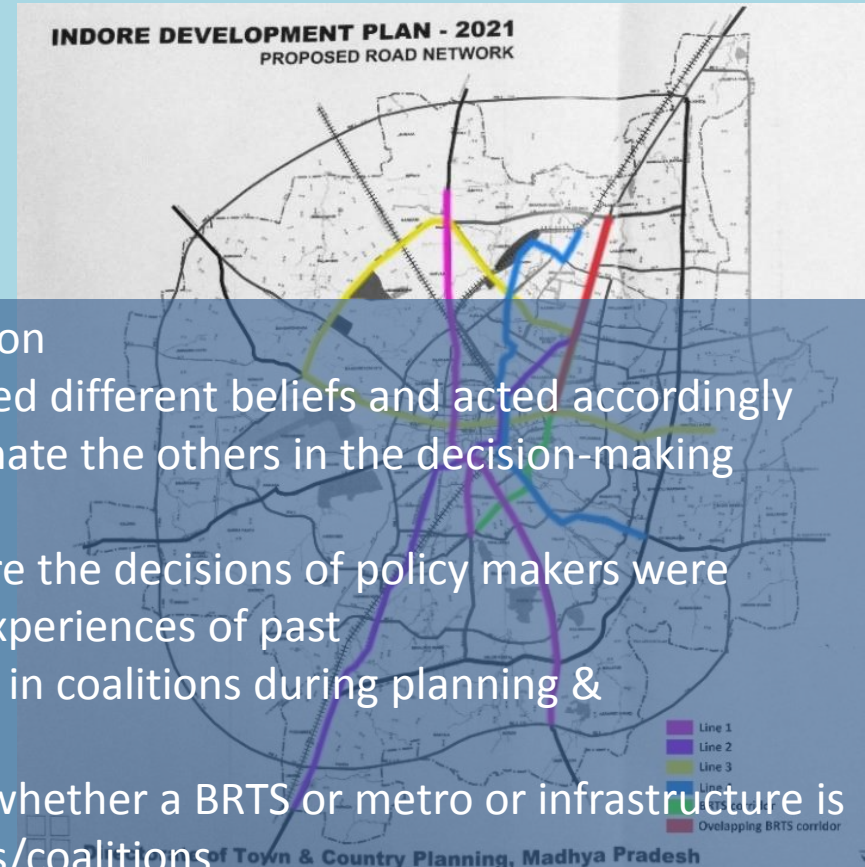
Actors/Institution

- Synergy between Chief Minister & Finance Minister

Political Scenario

- Political stability Same political parties at Center, State & local level
- Discussions on the feasibility of monorail over metro after change in

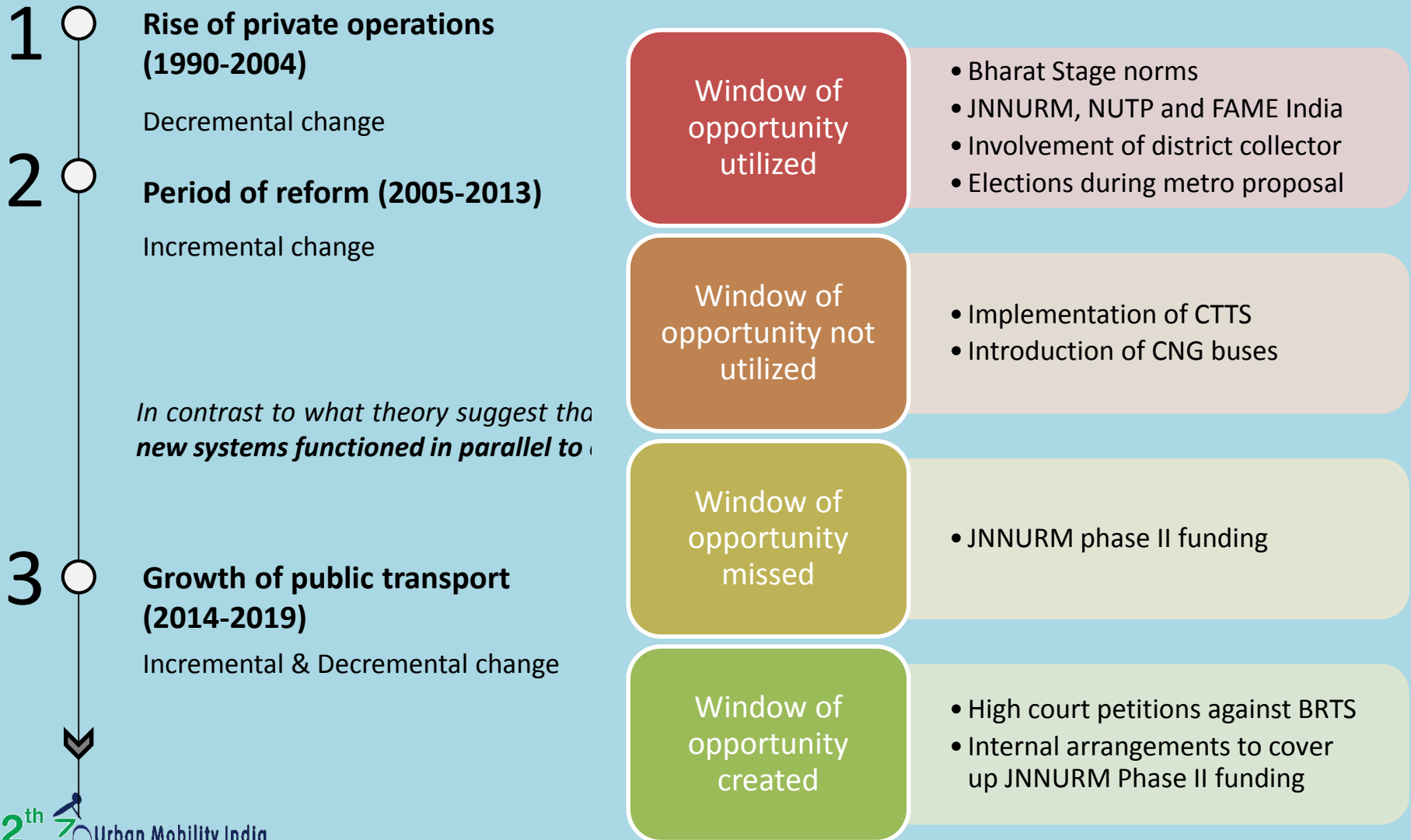
INDORE DEVELOPMENT PLAN - 2021
PROPOSED ROAD NETWORK



- Stages of Policy Learning, Agenda Setting- vision
- Different combinations of coalitions had carried different beliefs and acted accordingly
- Some coalitions were strong enough to dominate the others in the decision-making process
- Aligns with the path dependency theory where the decisions of policy makers were influenced by decisions taken in the past or experiences of past
- Continuity & changes are affected by changes in coalitions during planning & implementation phases
- Development of any public transport system whether a BRTS or metro or infrastructure is formed by synergy between network of actors/coalitions

Proposed
Sanctioned Rs 7250 cr
Total routes 6
20% central 20% state
60 % ADB and NDB
6.5 km overlapping with BRTS
network

CONCLUSION: TRANSPORT DEVELOPMENT TRAJECTORY & WINDOW OF OPPORTUNITY



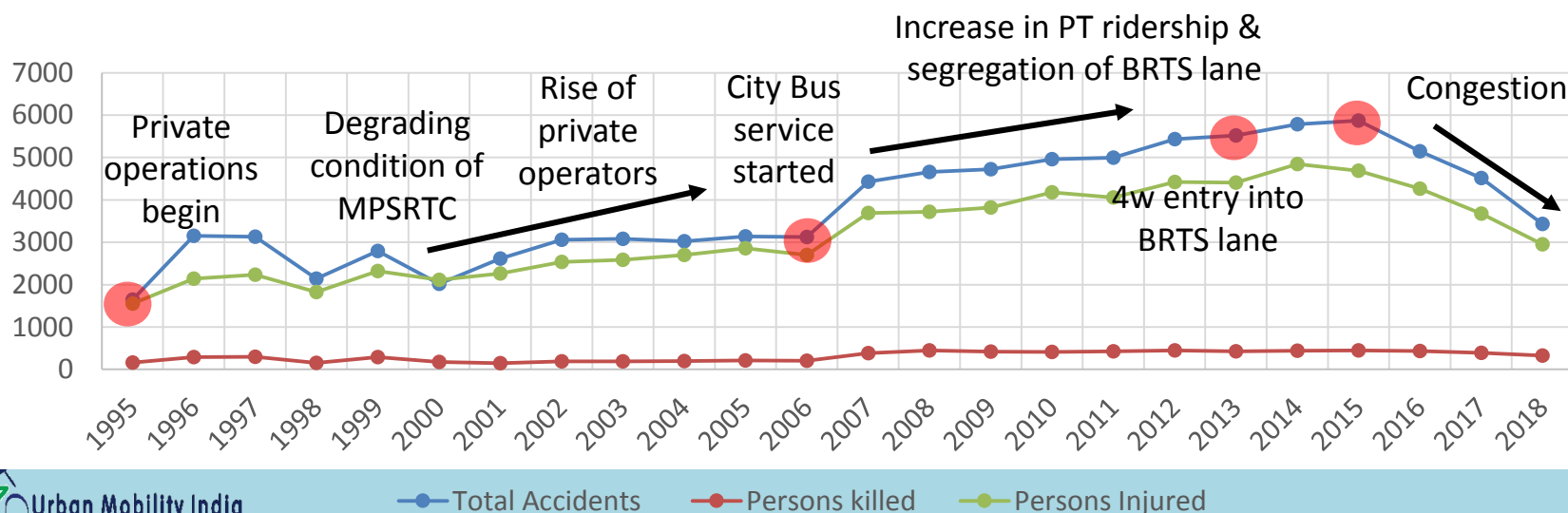
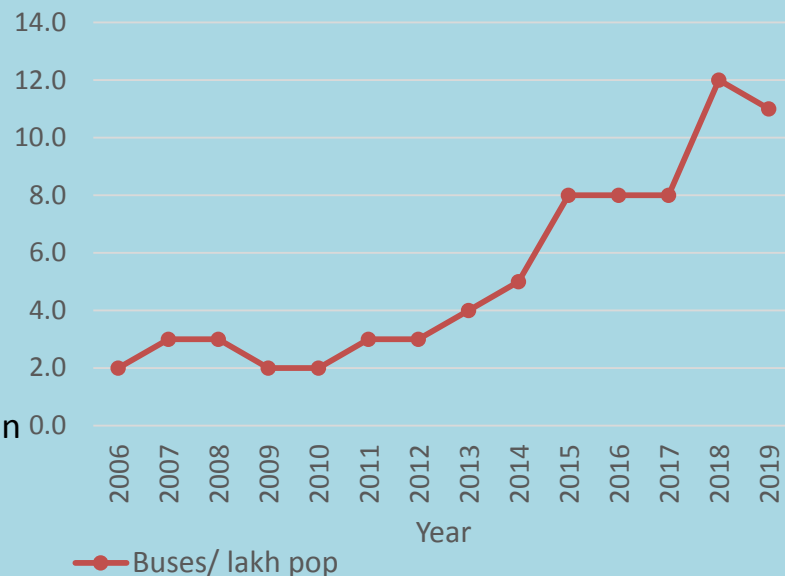
CONCLUSION: DIRECTION OF SUSTAINABILITY

IN THE DIRECTION OF SUSTAINABILITY

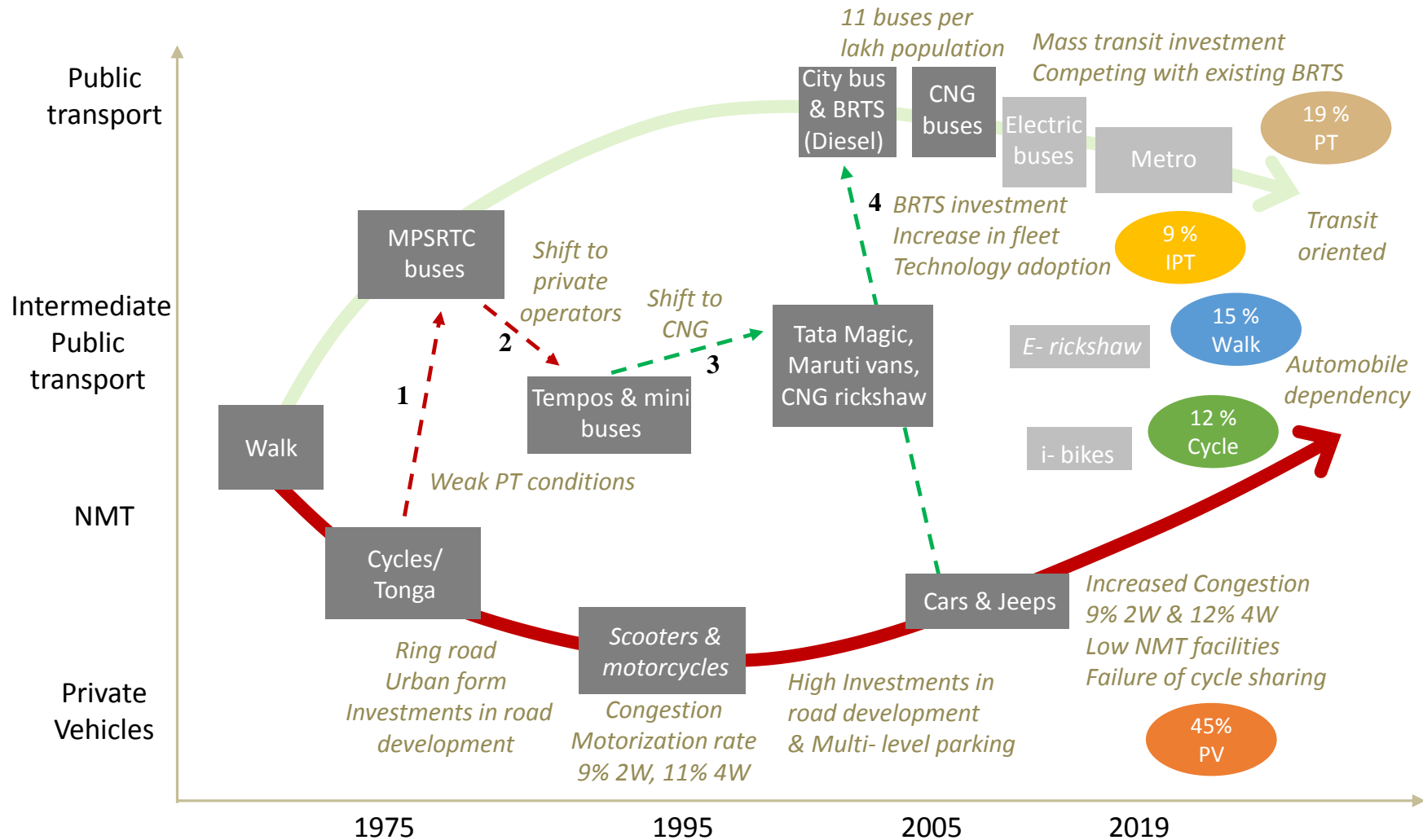
- Break in from the cultural barrier
- Demonstrated leadership
- Timely adaptations, innovations and risks had been taken
- capacity of system and required timely support from state and national government.

AGAINST THE DIRECTION OF SUSTAINABILITY

- Increasing trip lengths after centralization to decentralization
- Private vehicles and non- motorized modes of transport which comprises of 45% and 27% respectively
- 90% of the roads don't have sidewalks
- Cycle infrastructure is absent



CONCLUSION: DIRECTION OF SUSTAINABILITY



Inclination towards **automobile dependency**

Thank You

