

**PRESENTATION ON LEARNING, EXPERIENCE, WORK IMPLEMENTED,  
PLANNED AND ISSUE RELATED TO IMPLEMENTATION OF LEADERS  
PROGRAMME IN URBAN TRANSPORT PLANNING PROGRAMME IN  
SINGAPORE**

**DIRECTORATE, URBAN ADMINISTRATION AND  
DEVELOPMENT, BHOPAL**

**PRESENTED BY : Mr. KAMAL NAGAR  
(OSD-Transport)**



# Content



- Introduction – Date, Batch
- Program learnings
- Utilization of experience gained
  - Proposed any project, policy, immediate action taken (letters shared, made proposals)
  - Initiated any project
  - Participated in any other workshop
- Issues
- Any projects/proposal (you wish to propose to Central govt.)

# Introduction



- Participant – Kamal Nagar
- Designation – Additional Collector (2002 Batch)
- Position Held – OSD ( Transport )
- Department – Urban Development and Environment
- State – Government of Madhya Pradesh

## Brief Bios about officer



Involved in various projects, studies, workshops and seminars related to Public Transport and have given input in Policy Formation at various Platforms, in order to study Public Transport best practices over the World and had officially visited Singapore , Bogota (Colombia) to establish a Sustainable Public Transport scenario in the State of Madhya Pradesh.

A Key member of the Transport division of the Directorate and **Madhya Pradesh Metro Rail Corporation Limited (MPMRCL)**, a Company fully owned by Government of Madhya Pradesh and to be created with an object to implement Mass Rapid Transit System (MRTS- Metro) in the Bhopal and Indore cities of the State.





Photograph of 1960



Photograph of 1960



Photograph of 19<sup>th</sup> Century



Photograph of 1960

# LOCATION MAP OF COUNTRIES VISITED





- Public transport policy in Singapore
- Institutional arrangement for development of Urban Public Transport
- Urban Transport Planning and integration between land use and urban transport.
- Operation and development of Urban Public Transport
- Administration and Finance of Urban Public Transport.
- Urban Public Transport systems in Singapore including new transit systems.
- Singapore Urban Railway Policy
- City Transport and Traffic Control Measures in Singapore.
- Sustainable public transport systems in Asian cities
- Urban Transport Planning and Policy development
- Multi Modal Integration

# Learning from SINGAPORE Visit

Sr. No.	Mode of Learning	Topics / Activities	Learning's
1	Class Room Study	Case Studies of Various Sustainable Urban Transport practices and Projects	<ol style="list-style-type: none"> <li>1. Study of Various Public Transport System MRTS ( LRT) Bus System IPT</li> <li>2. Urban Planning and Integration between land Use and Public transport Planning</li> <li>3. Multi Modal Integration</li> <li>4. Transit Orientated Development (TOD)</li> <li>5. Operation and management of Public Transport System                             <ul style="list-style-type: none"> <li>• Fare Integration</li> </ul> </li> <li>6. Sustainable Public Transport and Traffic Solutions</li> <li>7. Intelligent Transport System</li> <li>8. Vehicle Quote System (VQS)</li> </ol>

## Learning from SINGAPORE Visit

Sr. No.	Mode of Learning	Topics / Activities	Learning's
2	Outdoor Activities – •Site Visit •Ride in various PT systems •Visit of LTA and other institution related to Urban transport Planning	•Visit of LRT •Public Transport System •LTA, •Metro Station Visit ( Little India), •Multi model Public Transport Hub •Traffic Information and Management Control Center (TiMCC)	<ul style="list-style-type: none"> <li>➤ Electronic Road Pricing (ERP)</li> <li>➤ Priority Bus Lanes</li> <li>➤ Fare Balance Ratio</li> <li>➤ Automatic Fare Revision</li> <li>➤ Reclamation of Land</li> <li>➤ Central Business District Development</li> </ul>
3	Case Studies	Best practices in public transport all across the globe	➤ Various Initiative/Innovative Projects
4	Group Discussion Group Presentation	Planning of city wide PT System	Experiences of other participants in various countries/cities City specific comprehensive planning and execution

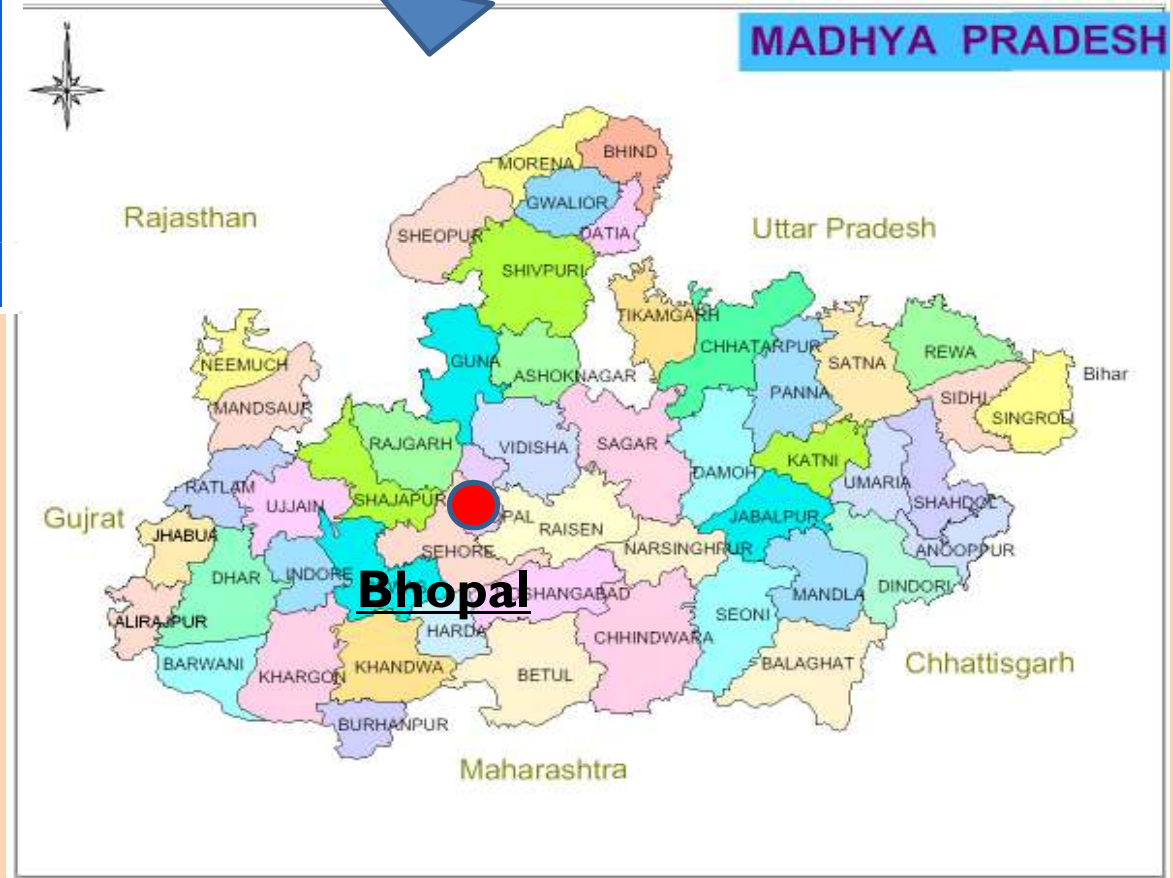


# **Public Transport Scenario in Madhya Pradesh**

# About Madhya Pradesh

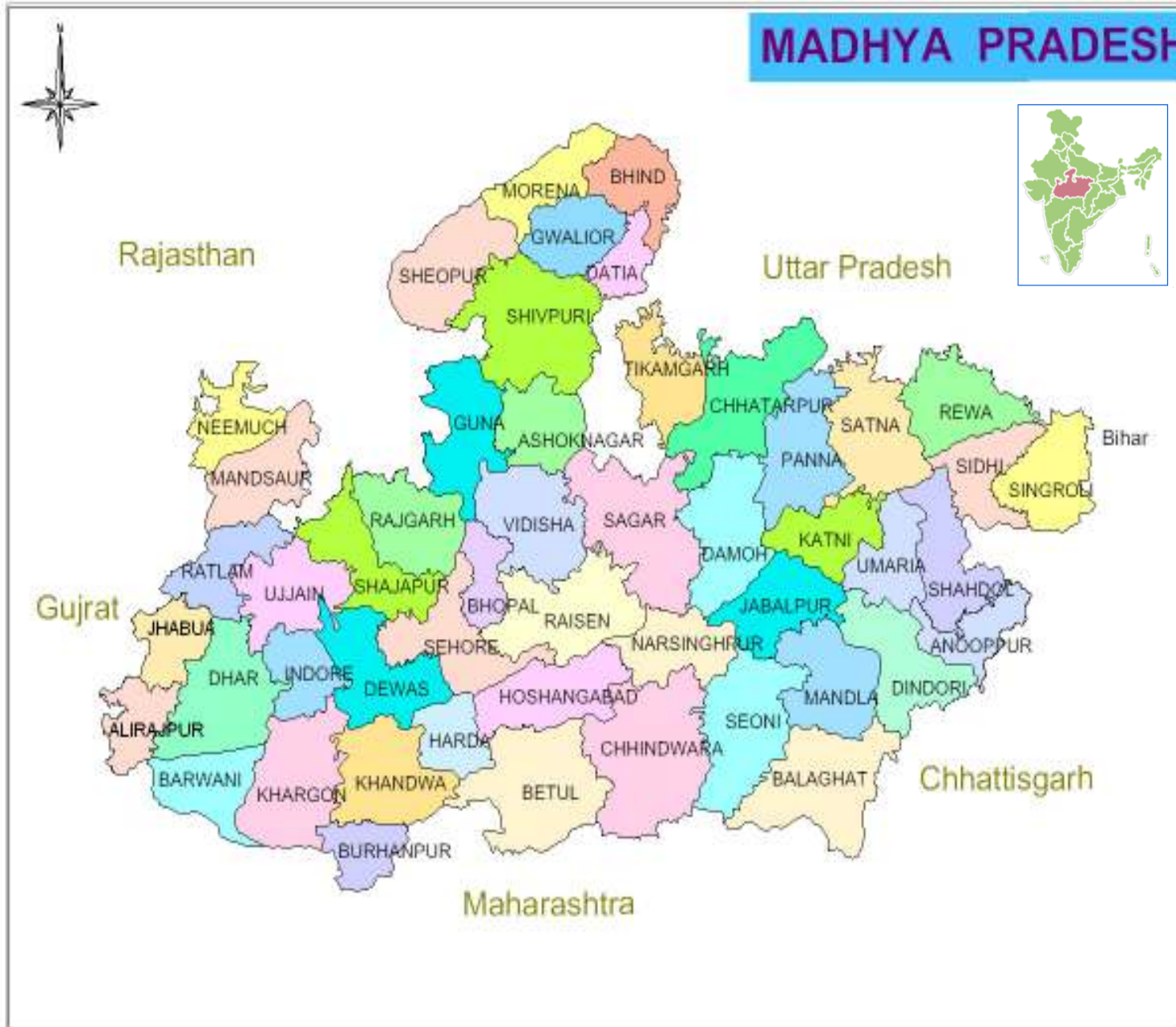


**INDIA**



**Bhopal**

# Brief Introduction about Madhya Pradesh



**Total Area:** 3, 08, 000 sq.km,  
9.38% of the country's total area

**Total Population:**  
7,25,97, 565

**population density is**  
236 person per Sq Km

**Total District:** 51 No

**Sub District:** 342 No

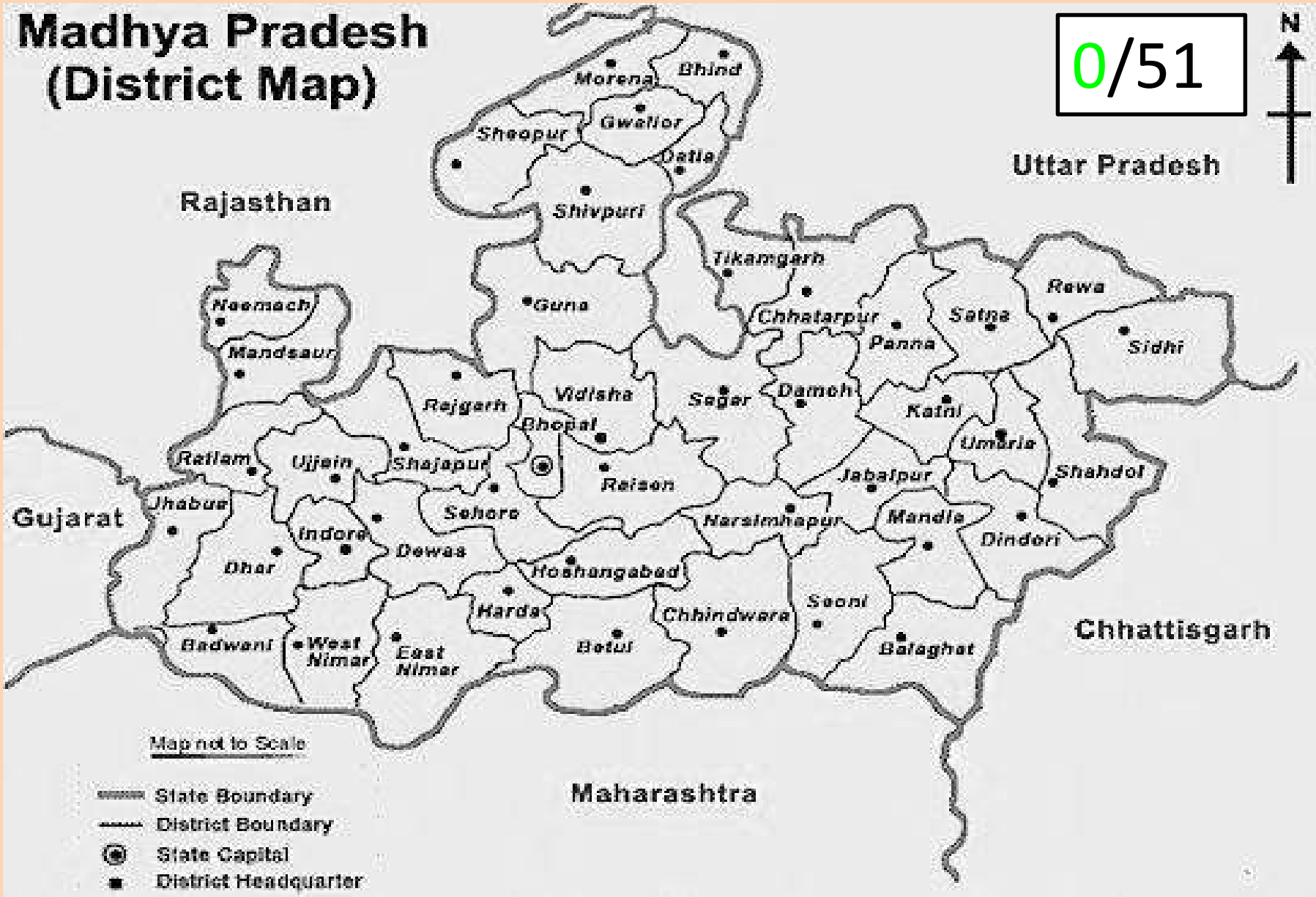
**Towns:** 476 No

**Villages:** 54,903 No

**Total ULBs:** 386

**Major Cities:** Bhopal,  
Indore, Jabalpur,  
Gwalier, Ujjain

# Status of City Public Transport Services in the State





## BACKGROUND : Existing Scenario of City Public Transport

### Current Public Transport Scenario in Medium Size Cities of the State



Highly overcrowded and unsafe shared autos, ace, champions

## Current Public Transport Scenario in Medium Size Cities of the State

Tonga



Slow moving and causes delay and congestion in cities like Guna, Vidisha, Burhanpur, etc.



# Current Public Transport Scenario in Medium Size Cities of the State

Magic

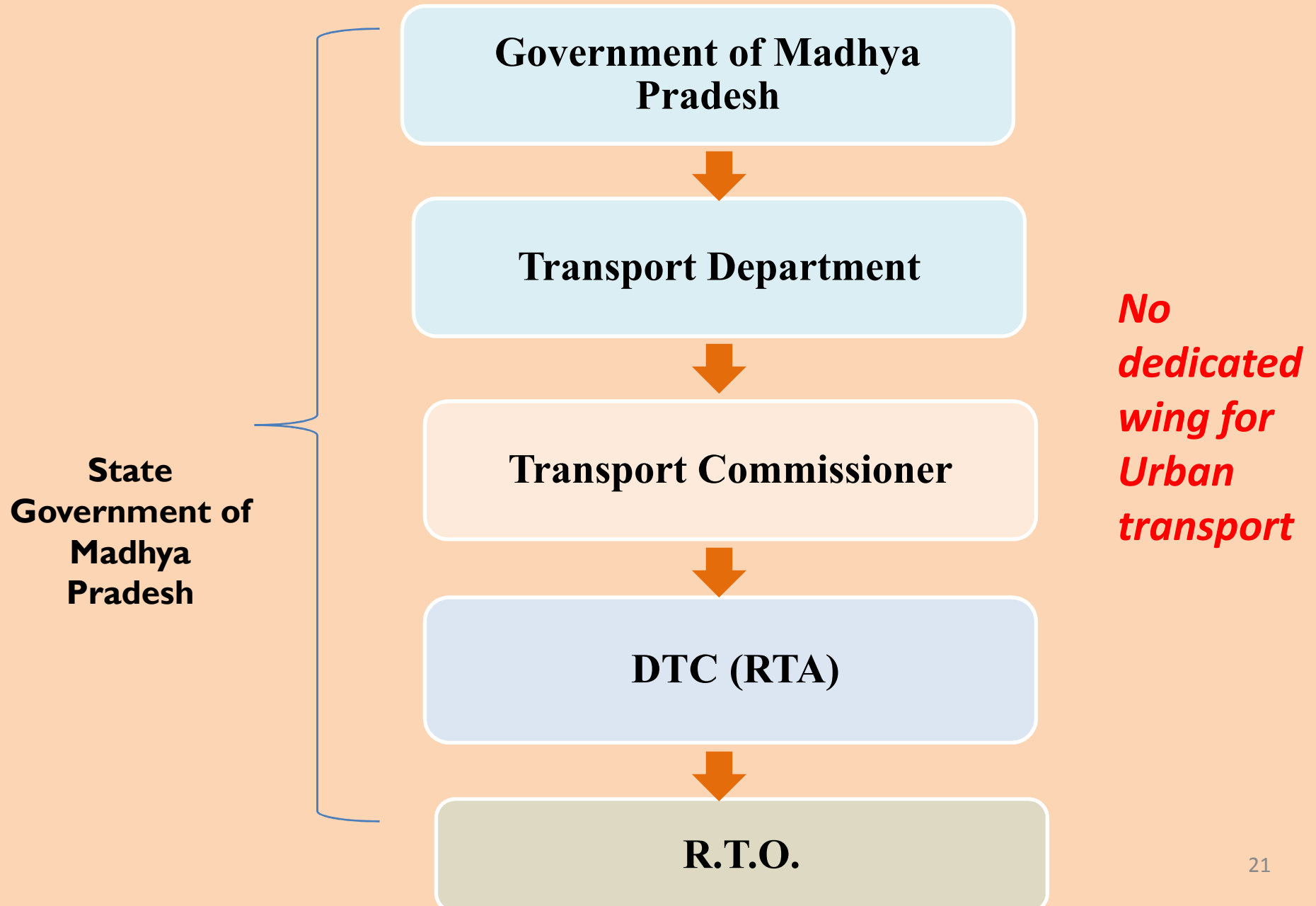


## Current Public Transport Scenario in Medium Size Cities of the State

### Cycle Rickshaw







- **Analysis of Singapore and other Developed Countries Experience with Indian Context :  
Specific emphasis on Madhya Pradesh**

## Analysis of Singapore learning and its Applicability in Indian Context

Sr. No	Content	Observation	Applicability/Applicability in participant's Country and State.
1.	Policy	Comprehensive and city specific with generic guidelines, de-regulation	<ul style="list-style-type: none"> <li>• Sustainable and Demand based</li> <li>• Could be applied with keeping local scenario in mind</li> </ul>
2.	Institutional arrangement	Comprehensive ,Integrated and Inter Departmental Coordination.	<ul style="list-style-type: none"> <li>• Fusion of Public and Private sector and empowered integrated body .</li> <li>• Integrated Institutional mechanism to be developed</li> </ul>
3.	Urban Transport planning	Integration between land use and urban transport, Rail based TOD,	<ul style="list-style-type: none"> <li>• Integrated planning, Re-adjustment and demand based with mixed used high FAR/FSI planning</li> <li>• TOD and re-adjustment should be adopted keeping local scenario in mind</li> </ul>

# Analysis of Singapore learning

Sr. No	Content	Observation	Applicability/Applicability in participant's Country and State.
4.	Operation and Development	Pivotal role of Govt. sector and sustainability of the system.	<ul style="list-style-type: none"> <li>• Substantial importance to Private sector with regulated freedom by the Government.</li> <li>• PPP should be given due priority.</li> </ul>
5.	Adm. and Fin.	Substantial regulatory role of Govt.	<ul style="list-style-type: none"> <li>• Municipal Govt. with help of Central, State Govt. and private sector.</li> <li>• Could be adopted with substantial role of Govt. with reference to facilitation and regulation</li> </ul>
6.	Systems	Almost all kind of systems	<ul style="list-style-type: none"> <li>• Need and resource based.</li> <li>• Could be adopted as per Techno-commercial viability</li> </ul>

# Analysis of Singapore learning

Sr.No	Content	Observation	Applicability
7.	Urban Rail (Metro) Policy Rules and Regulations	Fare Balance Ratio Positive, Financing by Govt. and active involvement of private sector as per applicability.	<ul style="list-style-type: none"> <li>• Financial Sustainability with the help of Transit Oriented Based Development</li> <li>• Privatization could be given due importance</li> </ul>
8.	City transport study	Fare balance Ratio is Generally satisfactory. Sustainable public transport system, Citywide network, PPP	<ul style="list-style-type: none"> <li>• Demand based city transport with innovative systems.</li> <li>• City transport planning could be replicated looking local scenario and resources in mind</li> </ul>

# Analysis of Singapore learning

Sr.No	Content	Observation	Applicability
9.	Systems for Asian cities	Selection as per local socio-economical and techno-commercial basis.	<ul style="list-style-type: none"><li>• Glocal in nature.</li><li>• Sustainable systems on the basis of multi criteria, alternative socio-economic and Techno-Commercial analysis.</li></ul>
10.	Policy Dev.	Gradual, spontaneous, Role of city Govt., citizen and private sector.	<ul style="list-style-type: none"><li>• Realistic and Practical</li><li>• Sustainable policy with the help of relevant stakeholders and global best practises.</li></ul>

# Land transport authority and other pt authorities around the world

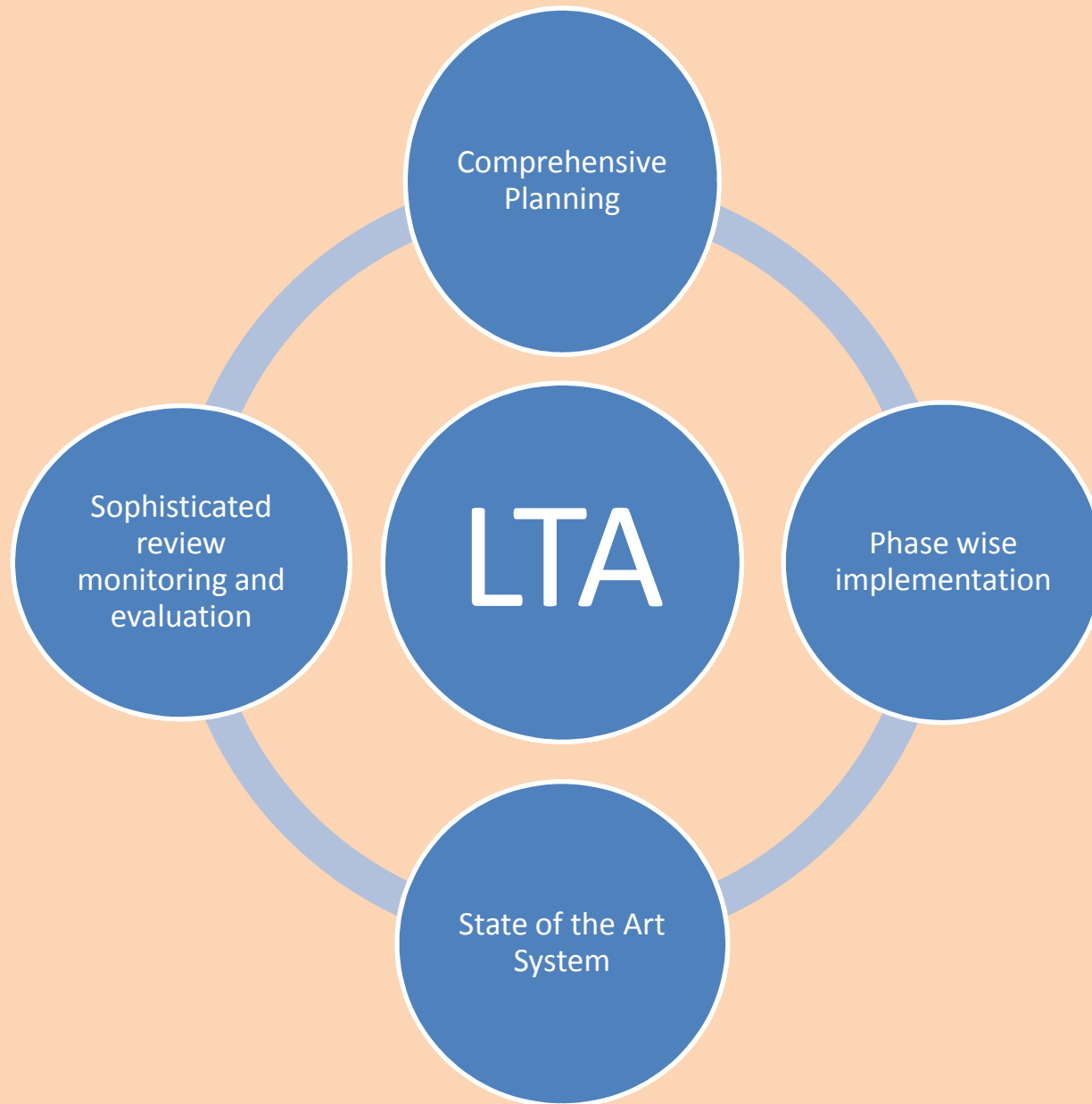


## Range of Functions of Urban Transport Authorities

City	Authority	Roads, traffic, NMT			Public Transport						Freight Transport					
					Infrastructure			Services			Infrastructure			Services		
		P	D&C	M	P	D	C	P	R	O	P	D	C	P	R	O
Singapore	LTA															
Hong Kong	TD															
Bangkok	BMTA															
New York	NYTA															
Manila	LTD															
Munich	MW															
Paris	STP															
London	London Transport															

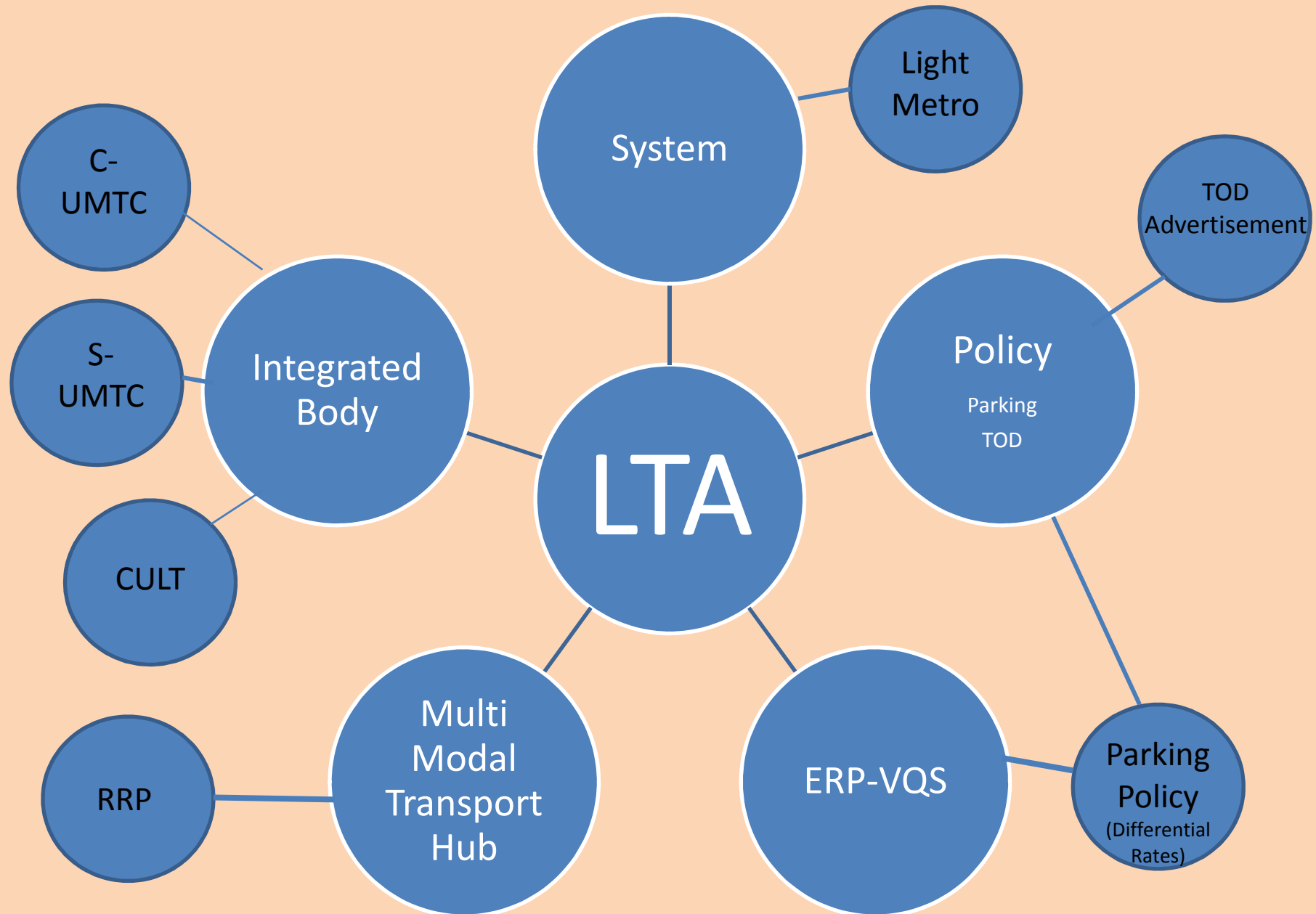
P - Plan      C- Construct   R- Regulate  
 D - Design   M- Manage   O- Operate

# Important observations of Singapore visit

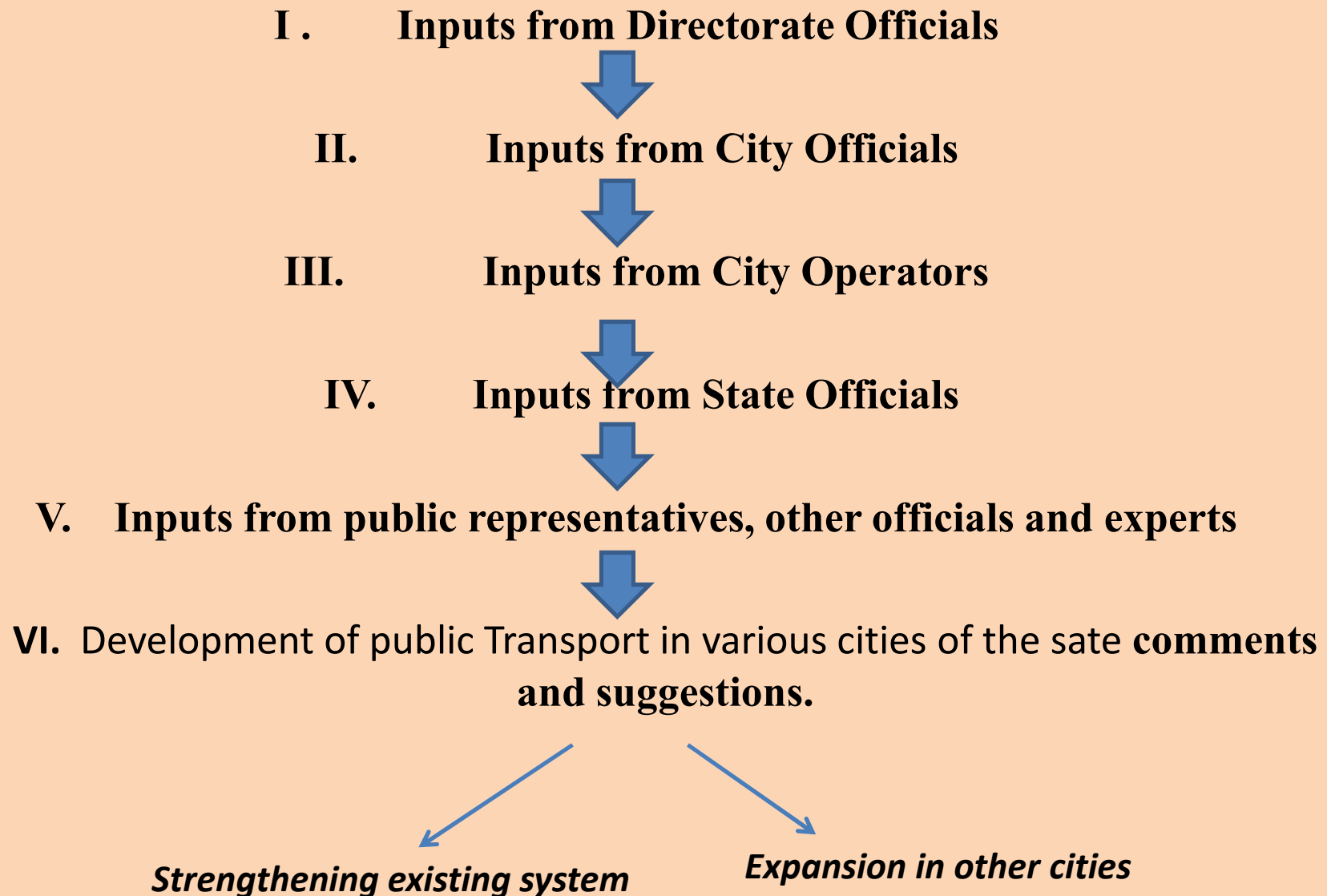




# Some important applications of learning



- Application of Learning.
  - Methodology
- Utilization of Experience gained



# Issues related to City Bus in various cities

(As per meeting with operators)

## Bhopal

- Lack of dedicated CEO
- Financial Viability of City bus system
- Parallel operation to BRTS and JnNURM Buses
- Illegal operation
- Lack of Passenger Fault System
- UMTA required
- Automatic Fare Revision
- City Permit for Buses
- RRP not being implemented
- UMTA to be constituted at the earliest
- Compliance of Divisional commissioner order for giving permit to intercity buses till outer bus Stop
- Notification of SPVs
- Time bond implementation of action against illegal vehicle
- Bringing IPT Under umbrella of SPVs

# Issues related to City Bus in various cities

(As per meeting with operators)

## Jabalpur

- Viability of Financial Model
- Providing powers to SPVs like official of a transport and traffic police for Development and regulation of Public Transport
- Non availability of bus stops
- Violation of Routes in city bus operation
- No power to SPVs
- Irregular Company meeting and operators not invited in the meeting
- Provision of VGF and Transport Cess
- Regular meeting with SPVs officials and operators at city and State level
- District administration to be actively involved

# Issues related to City Bus in various cities

(As per meeting with operators)

## Ujjain

- Unavailability of Sinhashta Transport Plan
- Revision of Fare not done for past two three years
- Illegal operation
- Parallel operation
- Lack of administrative support
- Dedicated CEO not available

## Indore

- CNG prices are quite high compare to other cities
- Conversion of CNG into diesel buses
- High VAT on CNG
- Unavailability of Spare parts for CNG buses
- Illegal operation
- State level workshop to be organized to set Public Transport agenda
- Tax exemption on purchase, Operation and maintenance of city buses
- Subsidies fuel City Buses

# Summary

- Subject of Urban Transport has been given to Department of Urban Development in the year 2009



- Department is accountable for Urban Transport. Department constituted SPVs still in the process of constituting SPVs.



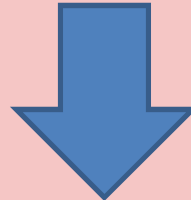
- Like Department of Urban Development SPVs and ULBs are accountable and responsible for Development and regulation of Urban Transport.



- Still Powers related to Urban Transport lies with Transport Department and other agencies i.e. with transfer of subject Power and authority have not been transferred

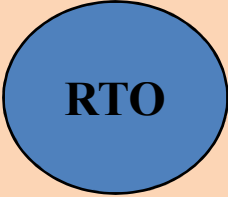
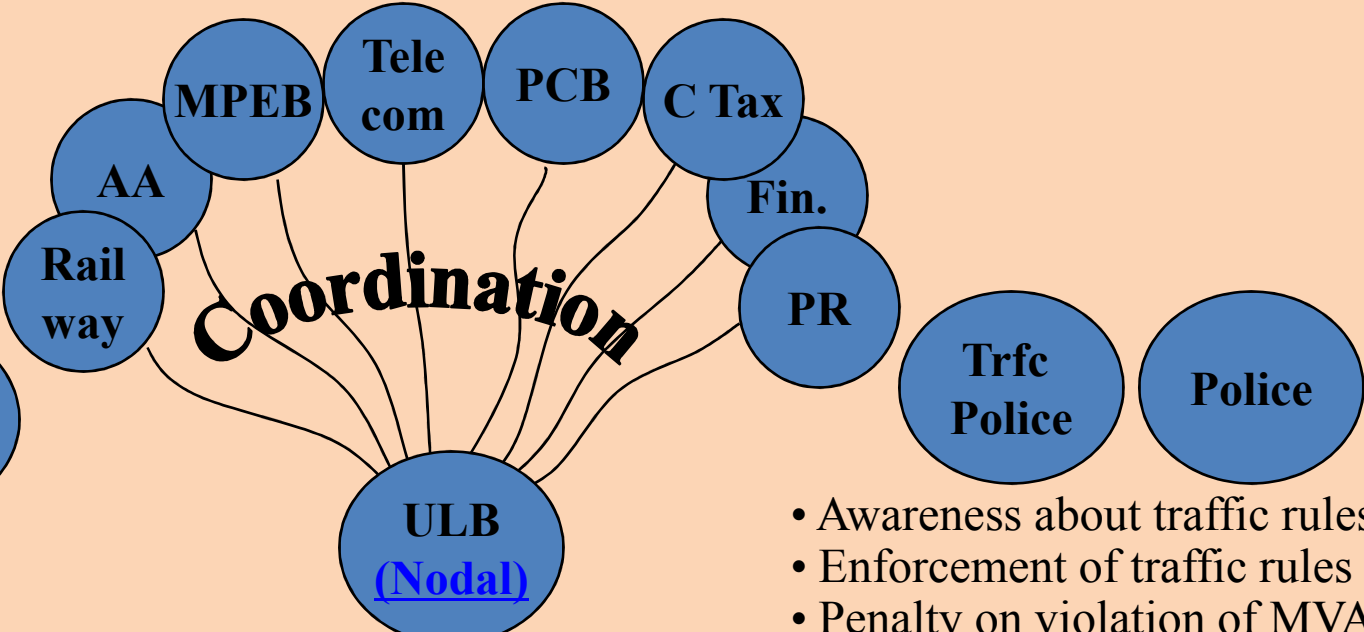
# Summary

Multiplicity of agencies and lack of an integrated accountable agency both at the State and city level

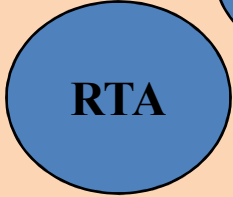




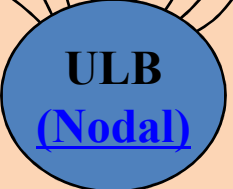
**MULTIPLICITY & ABSENCE OF SINGLE ACCOUNTABLE AGENCY**



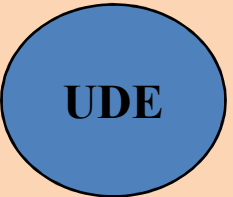
- Route Rationalization
- Vehicle Registration
- License, Permit, Fitness
- Fare fixtn, Tax collectn



- Coordination
- Law and order
- Heavy Vehicle Control
- one ways/Section144



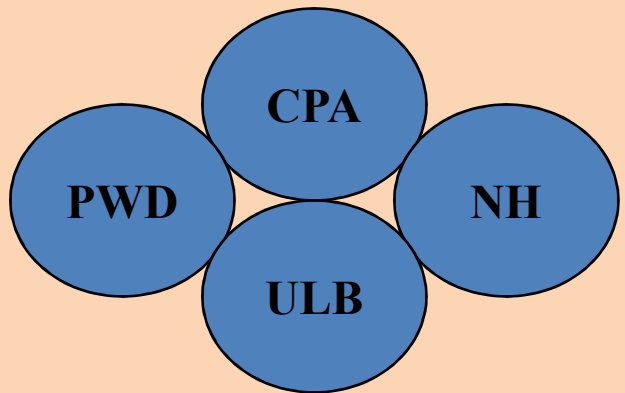
- Bus Operation
- InfraStructr Devt & M - BRTS Crdr, BSs, BTs , BDs
- Rotaries/Tfc Signals
- NMV- Licensing & Control
- Encroachment



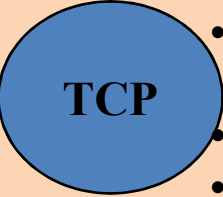
- PTS Devt /Regulation
- Policy & Rules Framing
  - Bus Procurement
  - Survey/Study/CMP/Projects



- Awareness about traffic rules
- Enforcement of traffic rules
- Penalty on violation of MVA & unauthorized parking
- Sinages and Road indicators

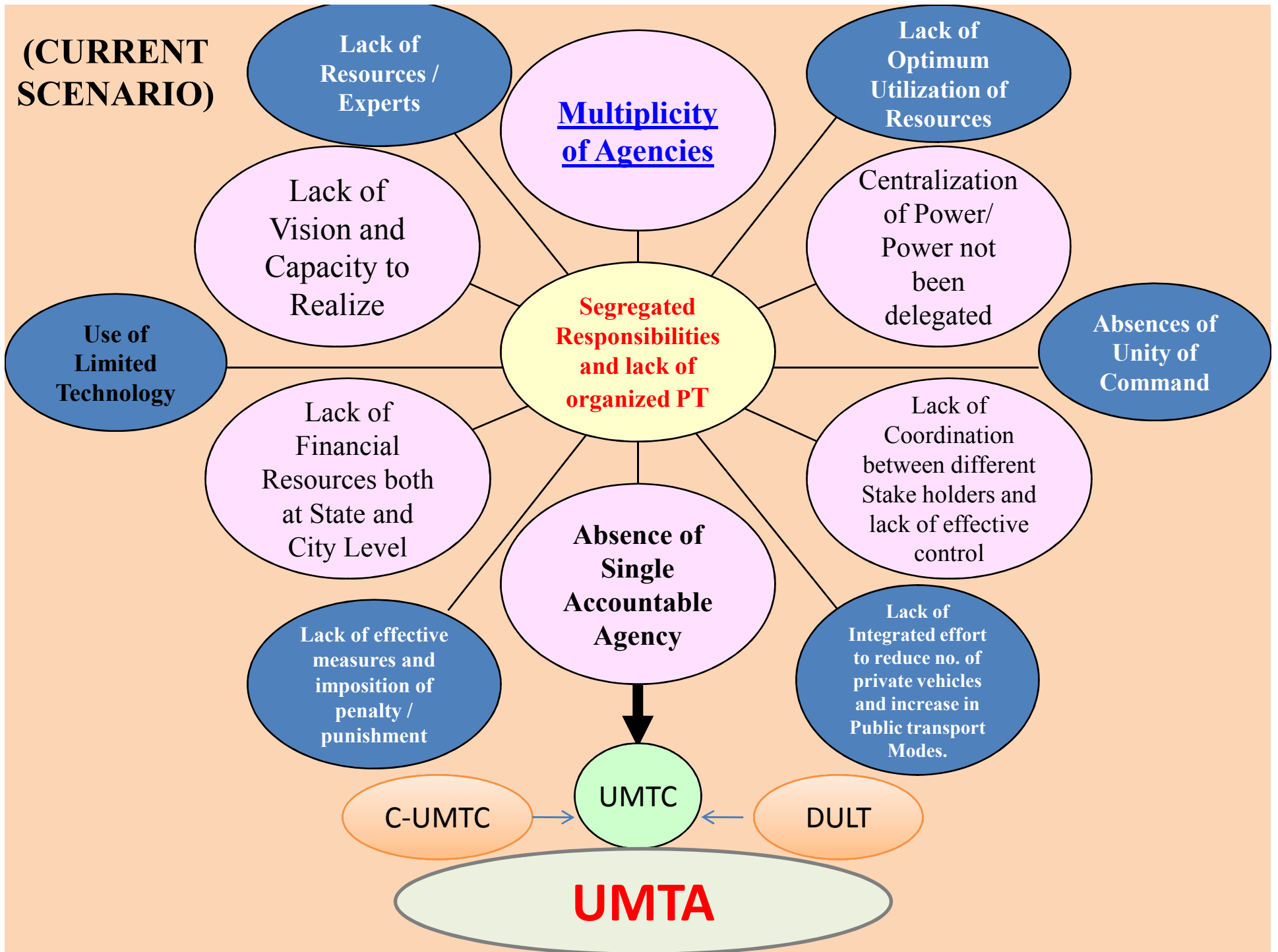


- Road construction
- Maintenance
- Road sides Beautification



- Coordination between Transport & land Use
- Assigning Land Use
- FAR/ FSI Fixation

**(CURRENT SCENARIO)**

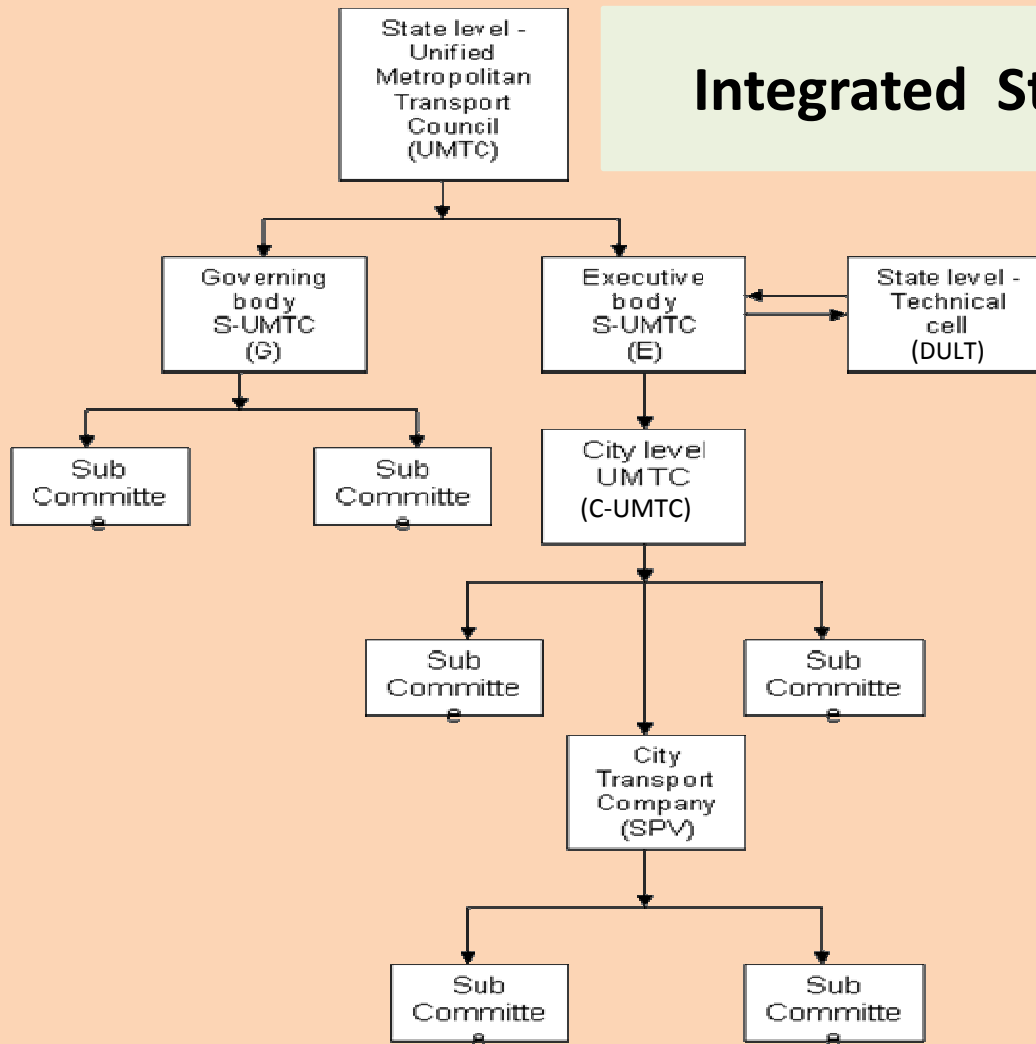


# Summary

Thus agency at State level i.e. DULT and agency at city level C-UMTC has to be constituted and it is also as per the guidelines issued by Gol

# Summary

## Integrated Structure of UMTC



# Summary

- Still Transport Department has authority and power to regulate but it is not accountable for Development and regulation of Urban Public Transport in the cities



- Department and SPVs are accountable without authority



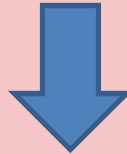
- Accountability and authority should be together. Without authority Department and SPVs unable to discharge their function properly.



- Thus authority related to Urban Transport should be transferred from transport Department and RTO to Urban Development and Environment Department and C-UMTC/UMTA/SPVs with reference to rules of business

# Summary

- UMTA would be tool for authority transfer and making authority accountable



- UMTA through executive order i.e. City Level Unified Metropolitan Transport Council(C-UMTC) has been conceived, cabinet precise prepared and sent for opinion of finance Department.



- C-UMTC to be constituted and after that allied reforms could be implemented as per applicability.



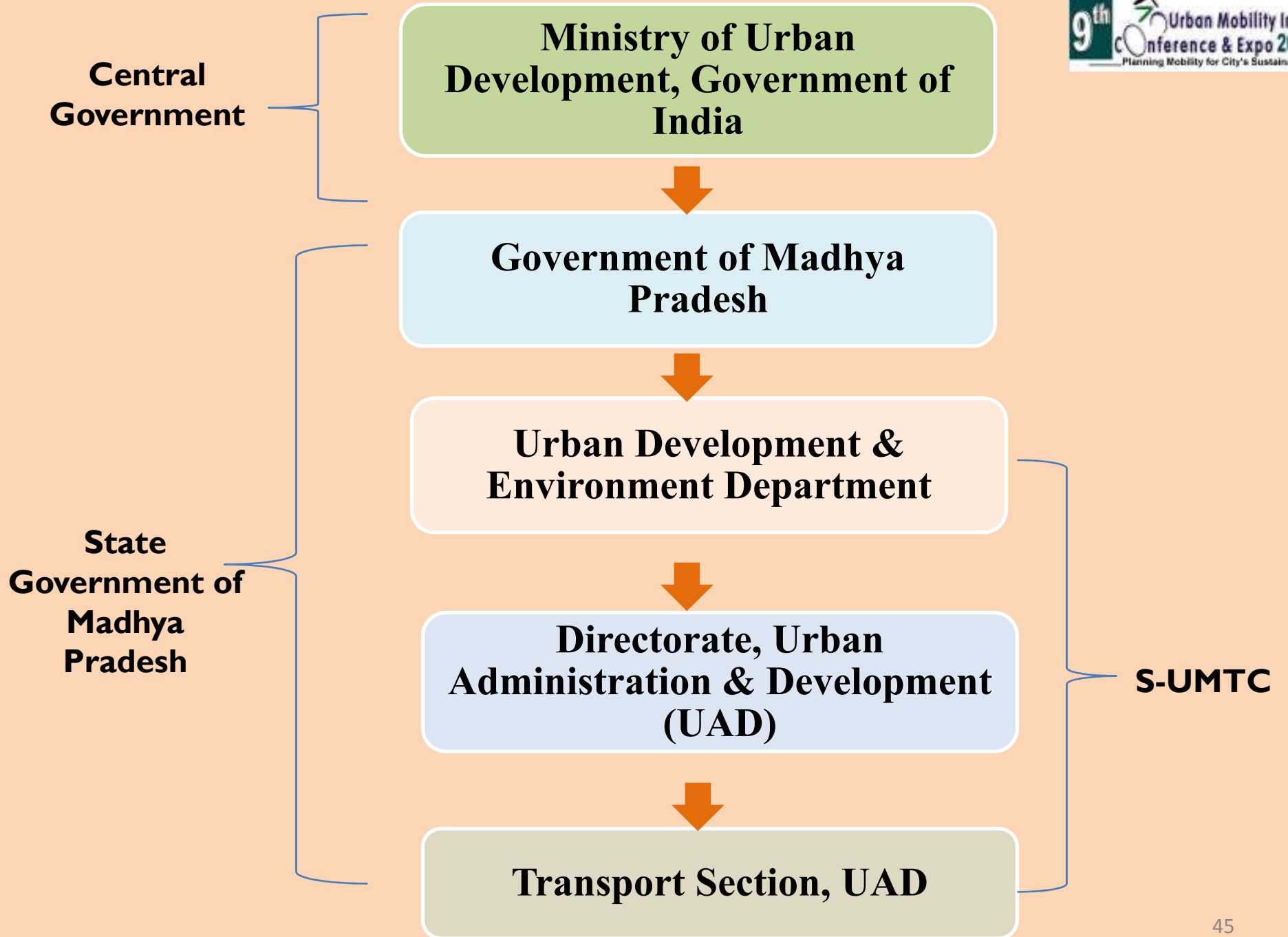
- Transport and RTO thus authorities should be transferred Department of Urban Development and SPVs with reference to rules of business



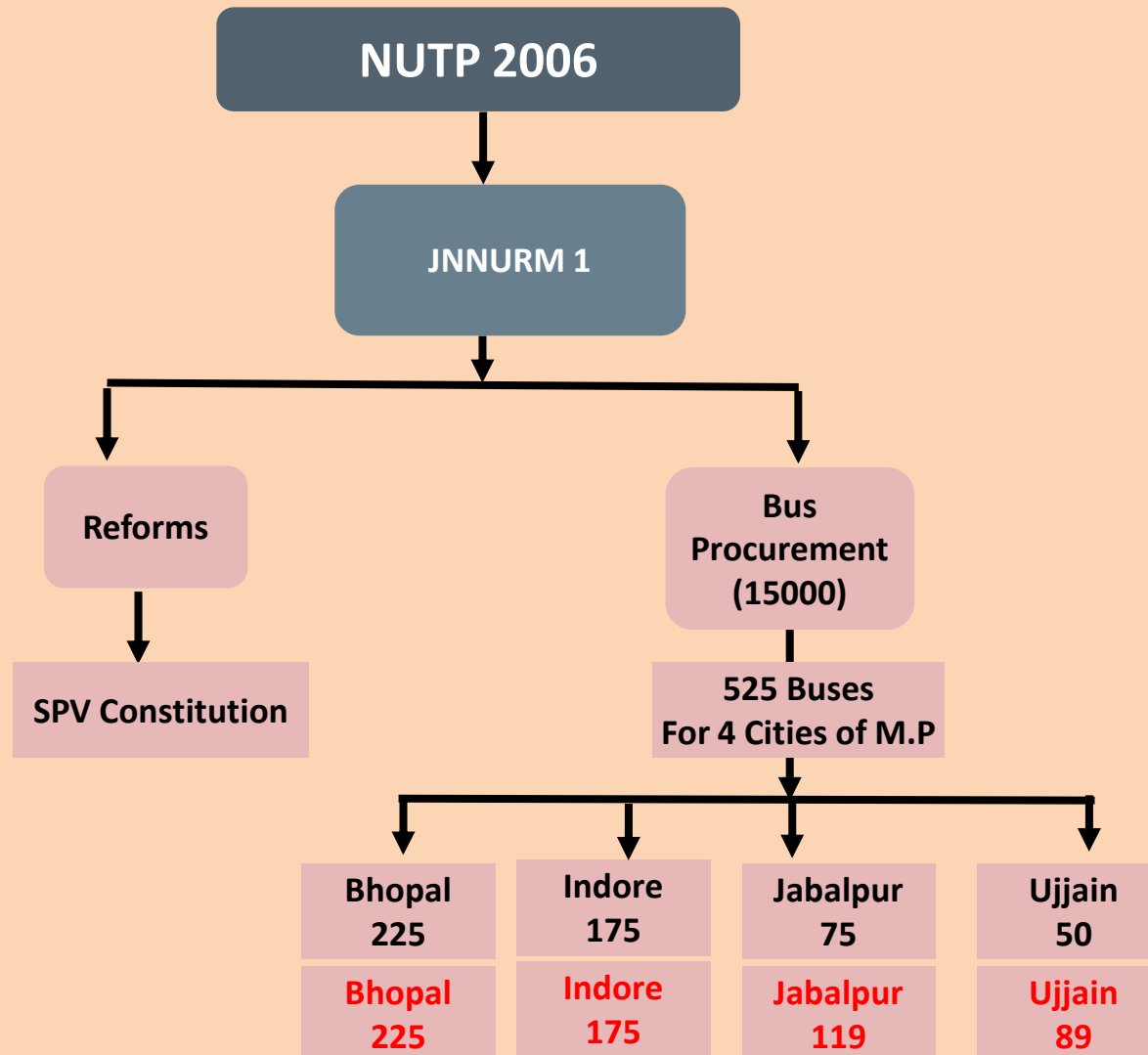
**VISION 2018**  
**for Public Transport in the State of**  
**M.P.**

# Vision 2018

- Promote rural connectivity and inter & intra city public transport to facilitate travel, and modernize the regulatory environment for private and commercial vehicles to ensure public safety and convenience.
- Expand transportation network for better connectivity and make facilitative changes in the regulatory framework.
- Affordable and reliable public transportation systems in urban areas
- Prioritize road safety and commuter convenience.
- Reforms to improve the institutional mechanism for creation of public transport infrastructure facilities



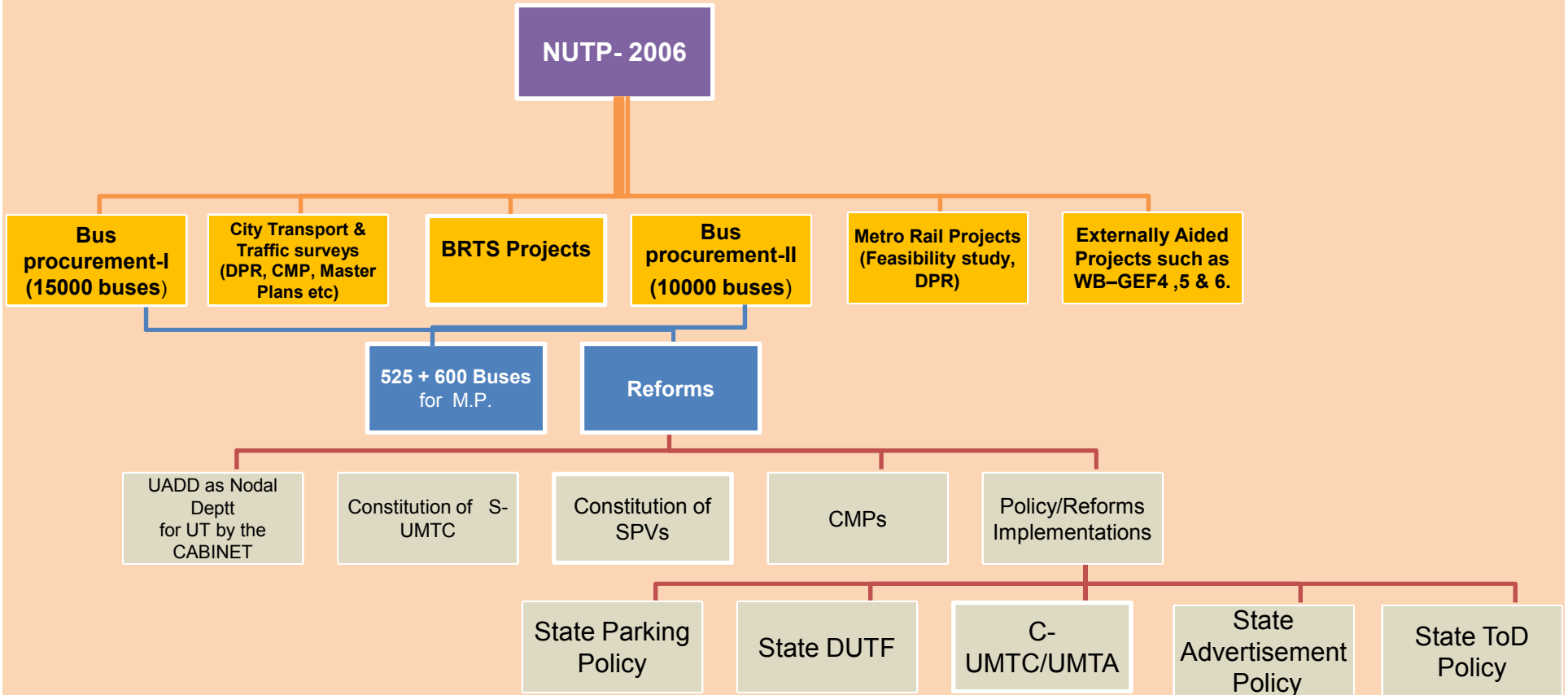
# Bus Procurement- I under JnNURM



*Original Sanction request*

*Actual Sanction*

# Bus Procurement and allied activities





**Before**



# Before



# After





# After



**Low floor AC buses in Bhopal**





INDORE



JABALPUR



BHOPAL



UJJAIN



**Bhopal BRTS**





**Bhopal BRTS**



**Bhopal BRTS**





**Bhopal BRTS**





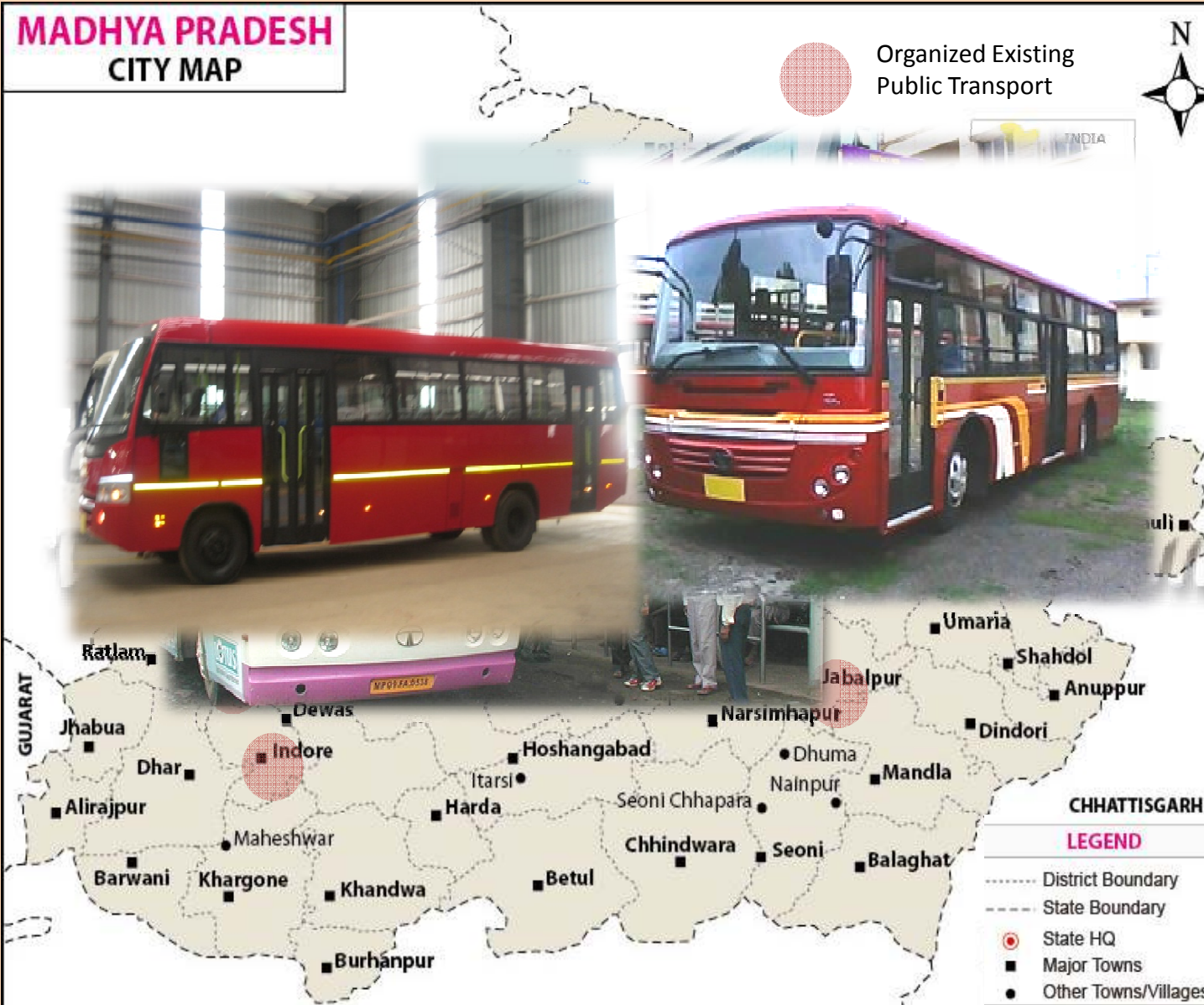
**Bhopal BRTS**



**Indore BRTS Corridor**



# Existing City Bus System

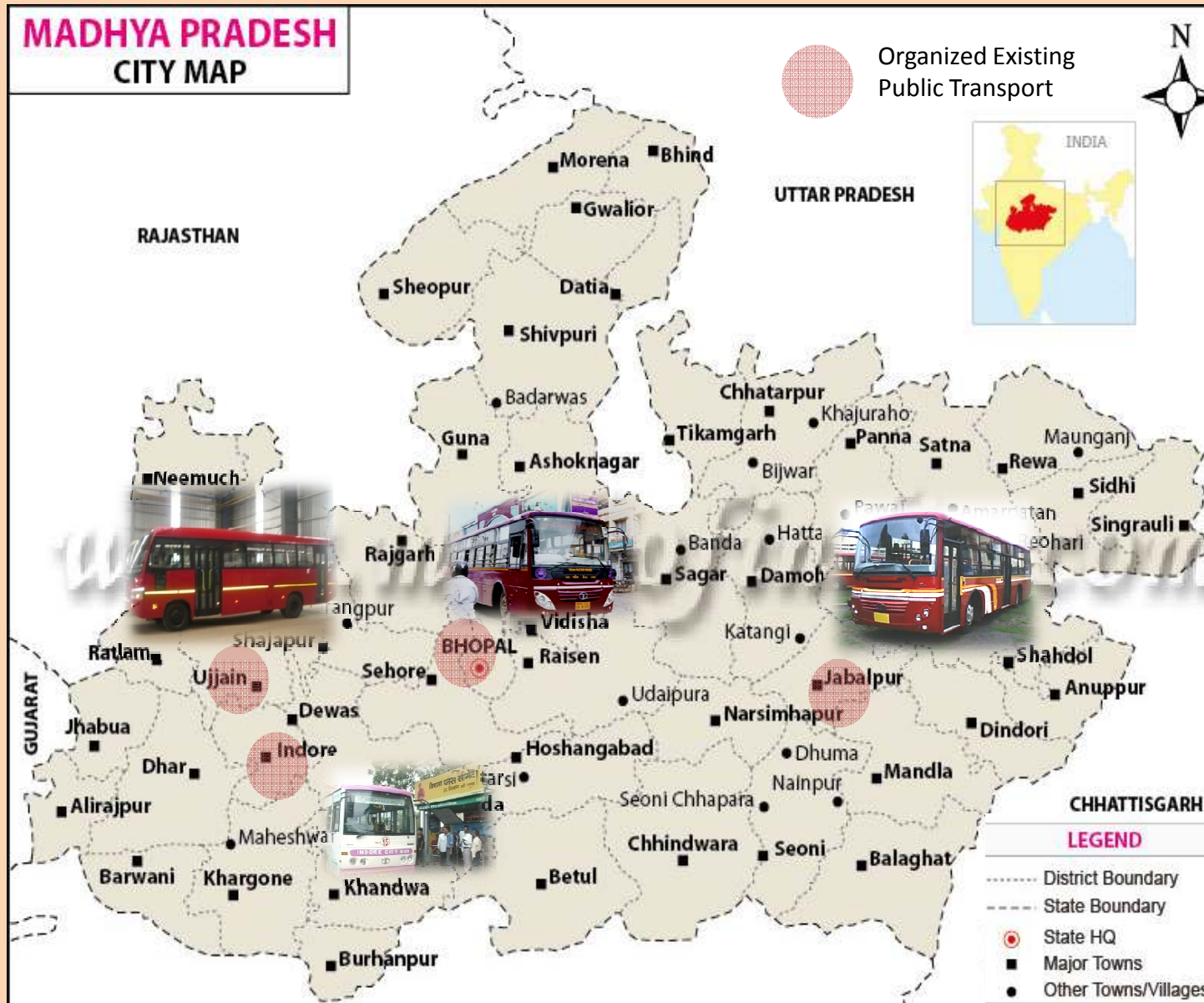


**Existing Organized Public Transport: 4 cities, Bhopal, Ujjain, Jabalpur, Indore**

Cities like, Gwalier, Betul, Katni, Sagar, Raison Ratlam etc all have **unorganized private operator** running the city bus service

Out of 33 cities only 4 cities have organized bus services (12.12%)

# Existing City Bus System



**Existing Organized Public Transport: 4 cities, Bhopal, Ujjain, Jabalpur, Indore**

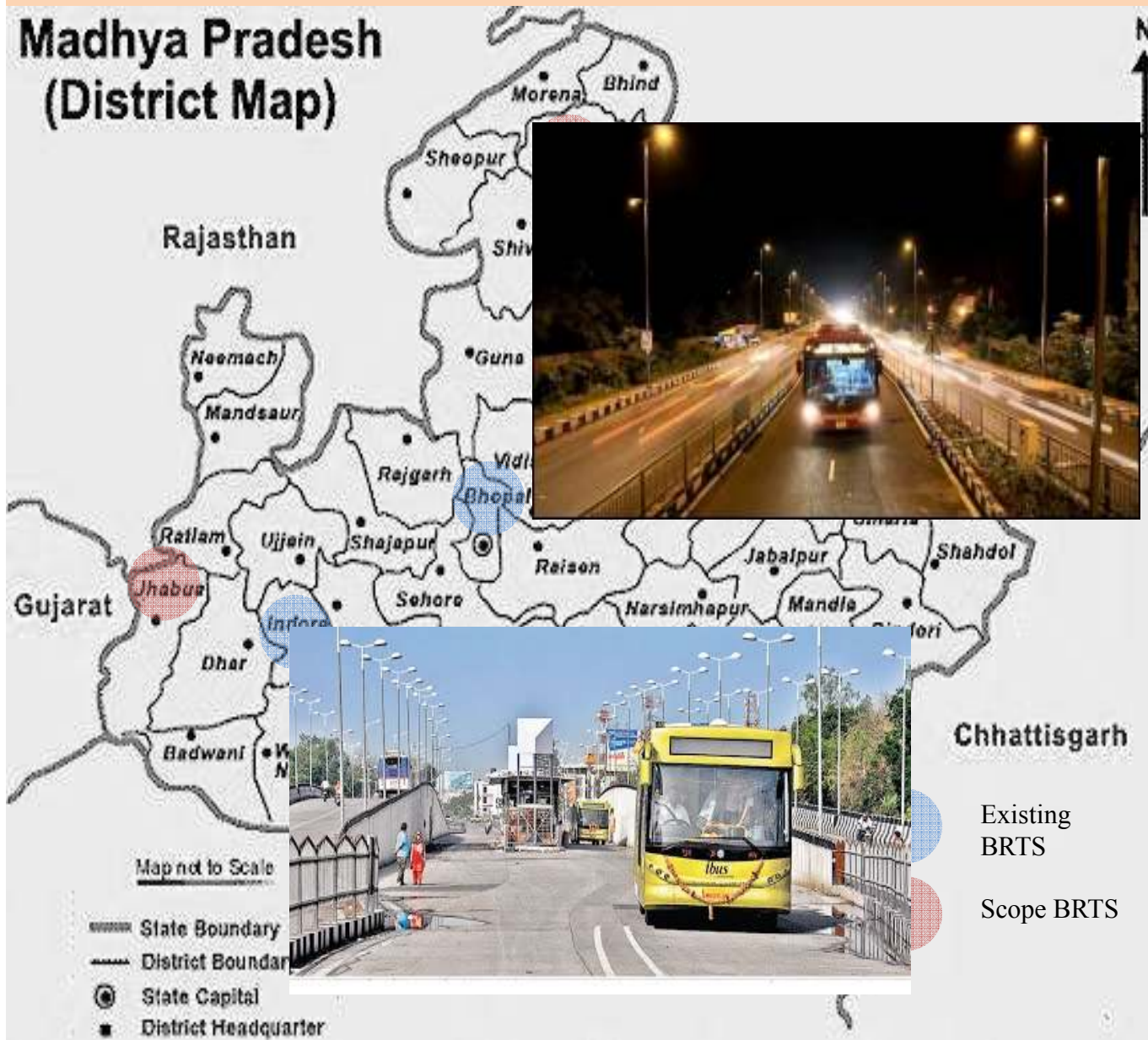
Cities like, Gwalior, Betul, Katni, Sagar, Raisen, Ratlam etc all have **unorganized private operator** running the city bus service

Out of 33 cities only 4 cities have organized bus services (12.12%)



# Existing BRTS System

## Madhya Pradesh (District Map)

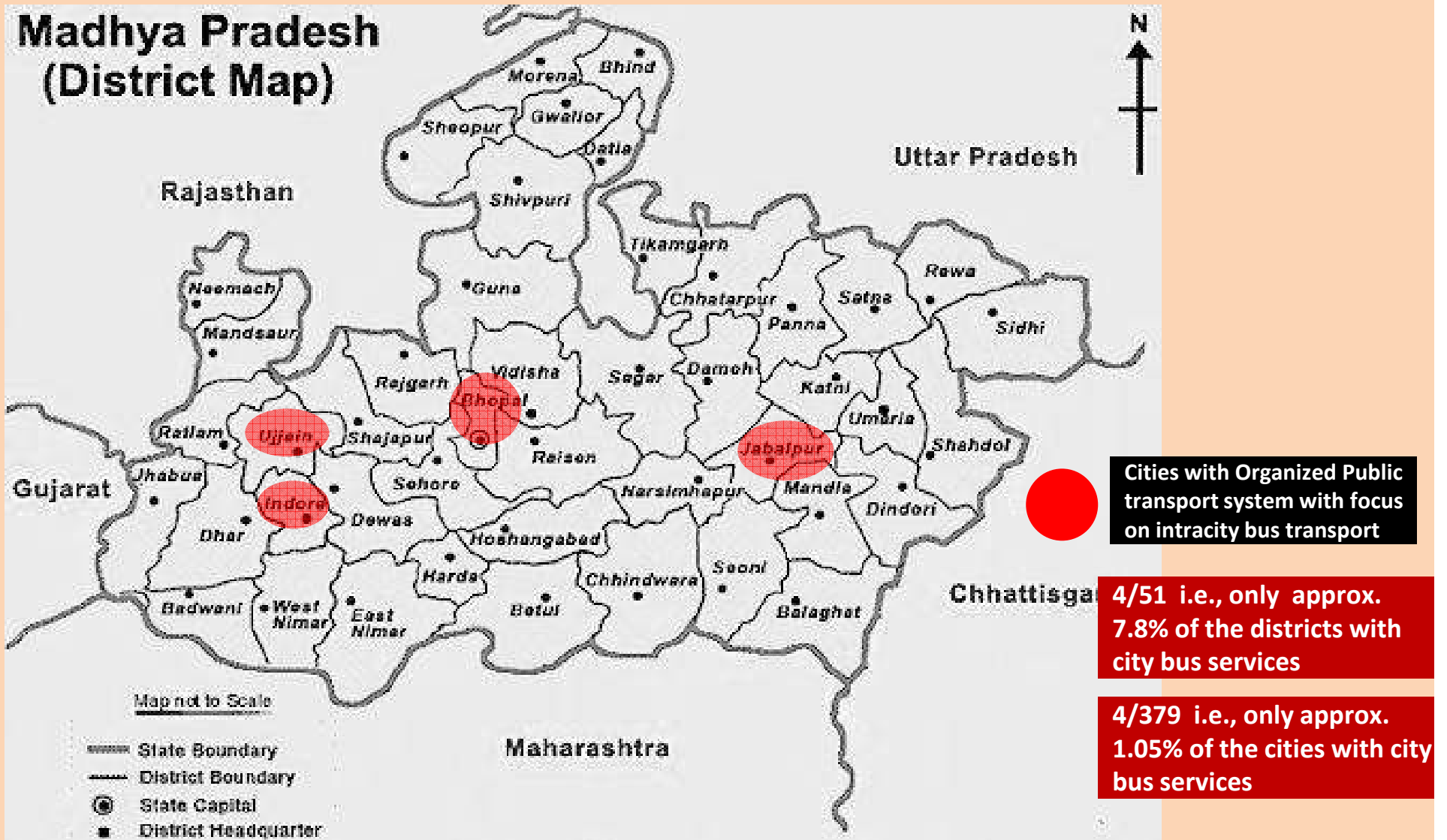


No. of million plus cities: 4  
BRTS Implemented cities: Bhopal and Indore

**Only 4 Cities with organized public Transport**

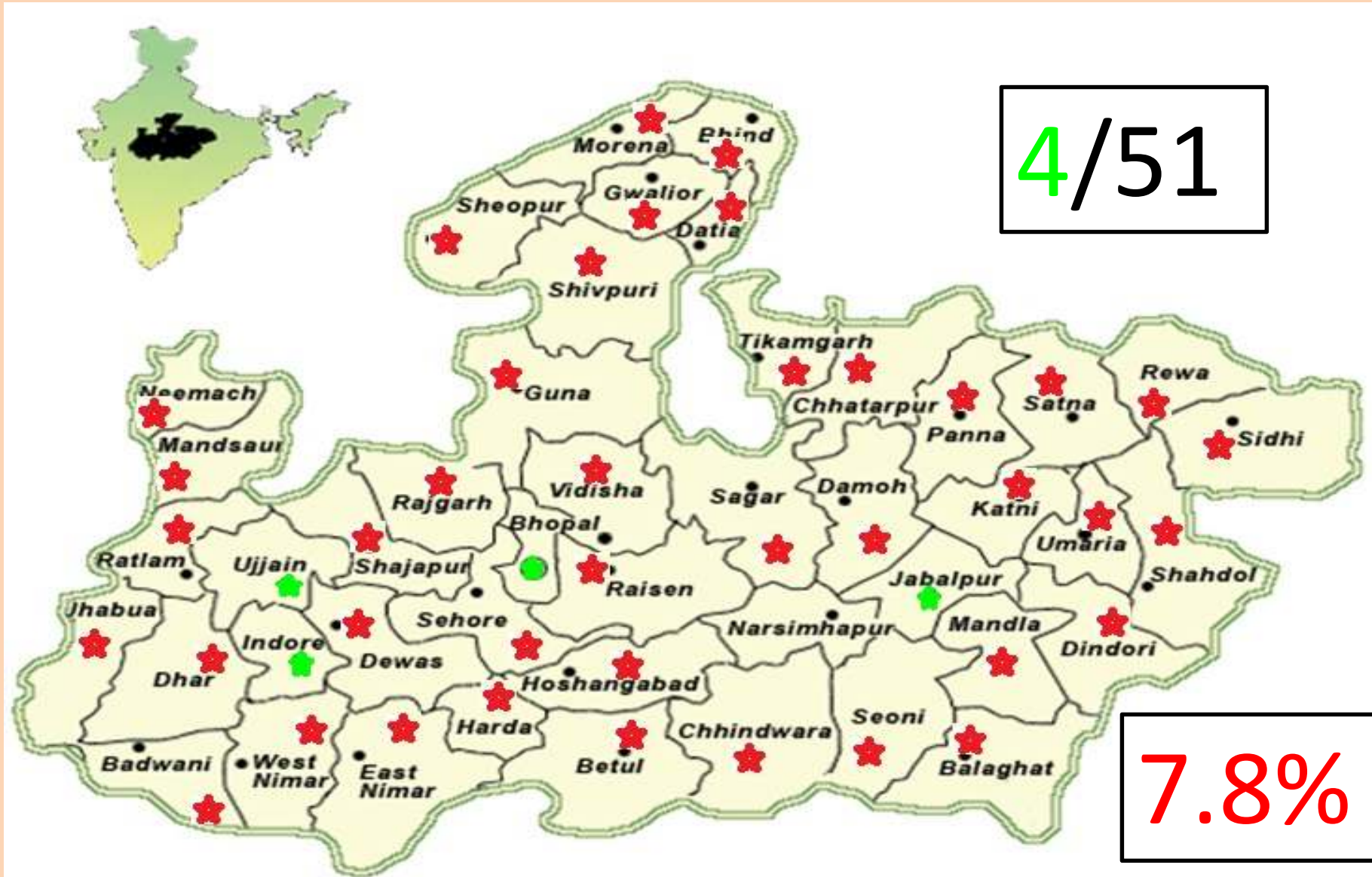


# Organized Public Transport in Madhya Pradesh



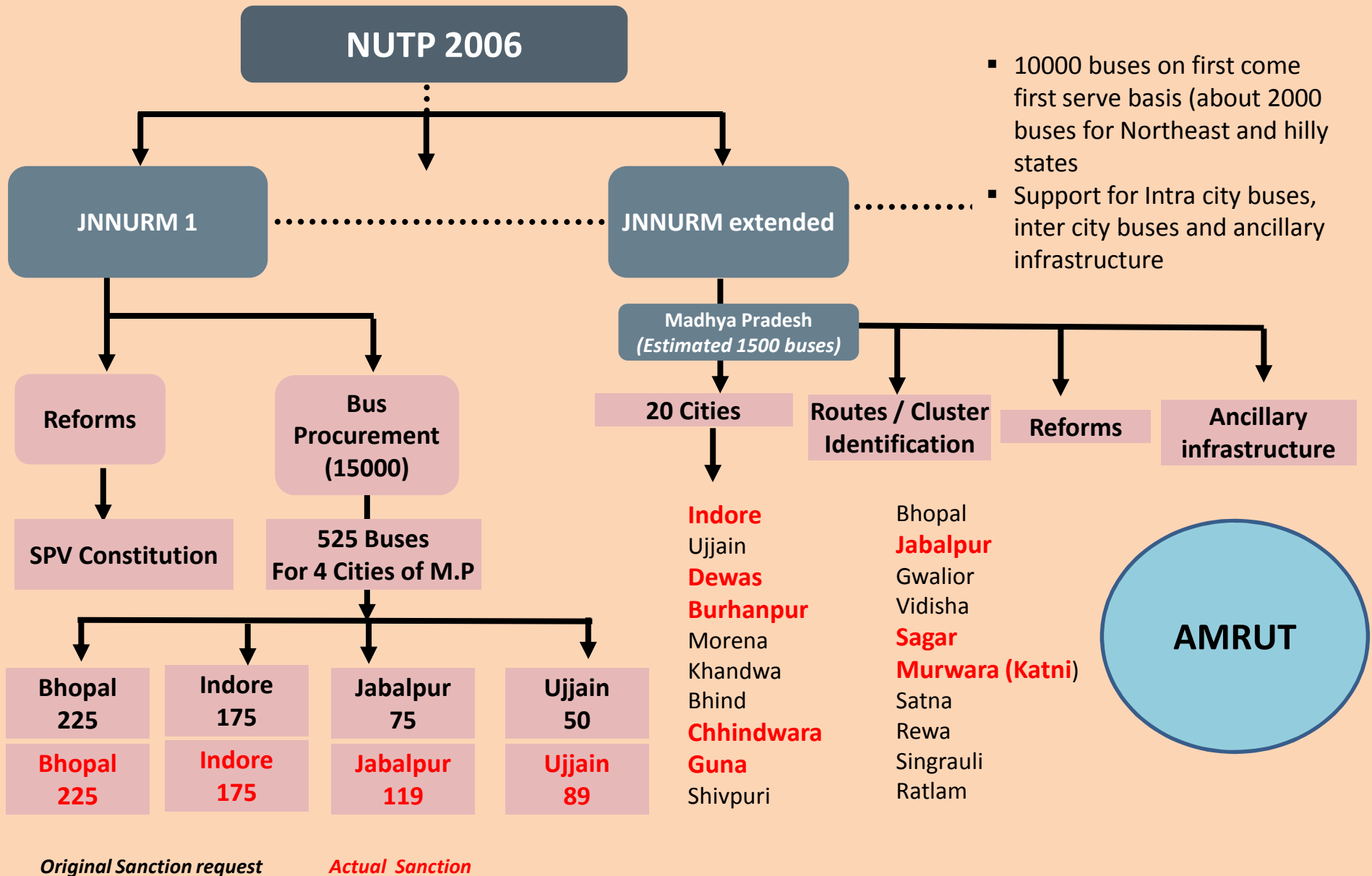
# Status of City Transport Services in the State

4/51



7.8%

# Bus Procurement- II under JnNURM



- 10000 buses on first come first serve basis (about 2000 buses for Northeast and hilly states)
- Support for Intra city buses, inter city buses and ancillary infrastructure

## 20 Cities Identified for Cluster Based City Bus Services Under AMRUT

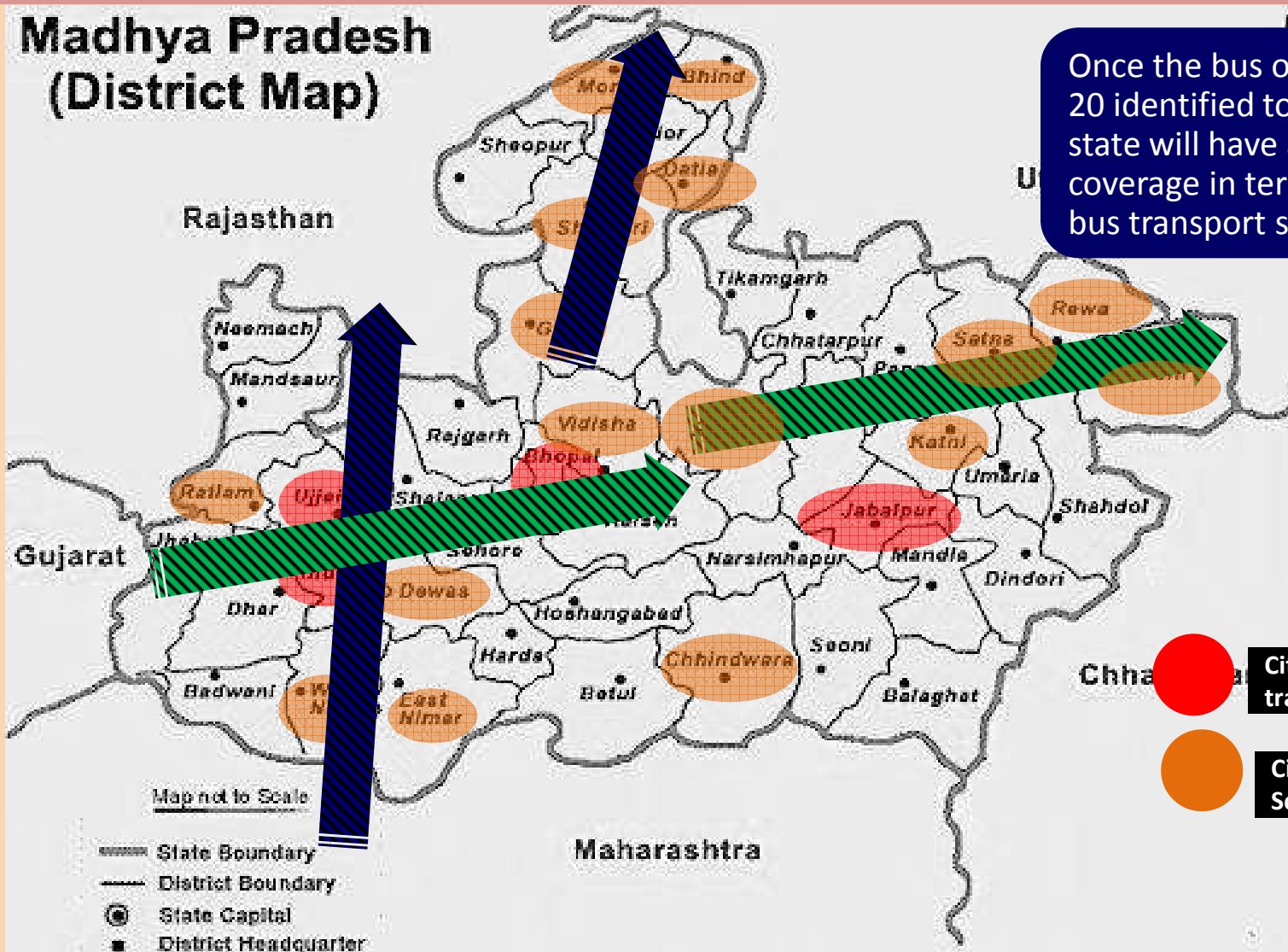
Sr. No.	City	Existing Organised City Bus Services	Proposed Organised Bus Services
1	INDORE	Intra + Partial Intercity	Intra + Intercity
2	UJJAIN	Intra + Partial Intercity	Intra + Intercity
3	DEWAS	-	Intra + Intercity
4	BURHANPUR	-	Intra + Intercity
5	KHANDWA/ EAST NIMAR	-	Intra + Intercity
6	MORENA	-	Intra + Intercity
7	BHIND	-	Intra + Intercity
8	GUNA	-	Intra + Intercity
9	SHIVPURI	-	Intra + Intercity
10	CHHINDWARA	-	Intra + Intercity
11	BHOPAL	Intra + Partial Intercity	Intra + Intercity
12	JABALPUR	Intracity	Intra + Intercity
13	GWALIOR	-	Intra + Intercity
14	SATNA	-	Intra + Intercity
15	SAGAR	-	Intra + Intercity
16	RATLAM	-	Intra + Intercity
17	REWA	-	Intra + Intercity
18	KATNI	-	Intra + Intercity
19	SINGRAULI	Intercity	Intra + Intercity
20	VIDISHA	-	Intra + Intercity





# Organized Public Transport Proposed in various cities of Madhya Pradesh

## Madhya Pradesh (District Map)



Once the bus operations starts in 20 identified towns in MP, the state will have about ~ 60% coverage in terms of organized bus transport system

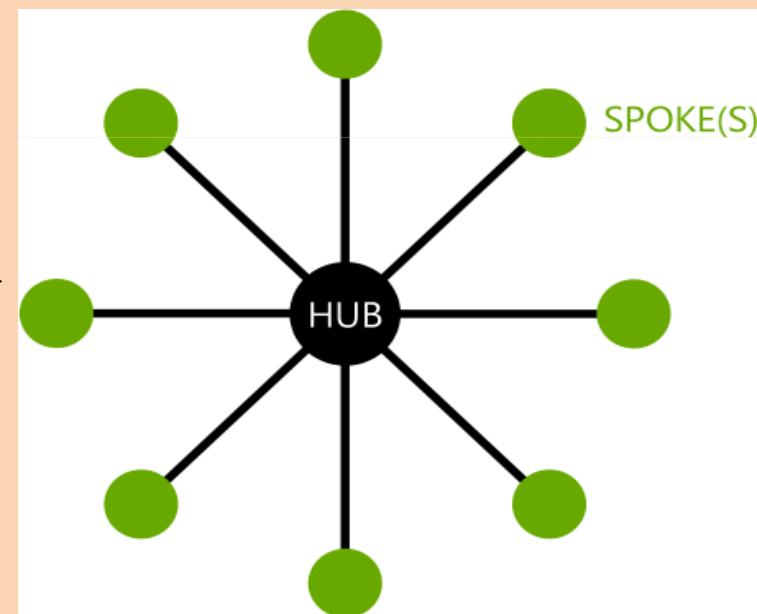
- Cities with Organized Public transport system
- Cities Proposed for PT Services

# Hubs and Spokes model

- The **spoke-hub distribution model** is a system of connections arranged like a **wire wheel**, in which all traffic moves along spokes connected to the hub at the center.



Wire Wheel

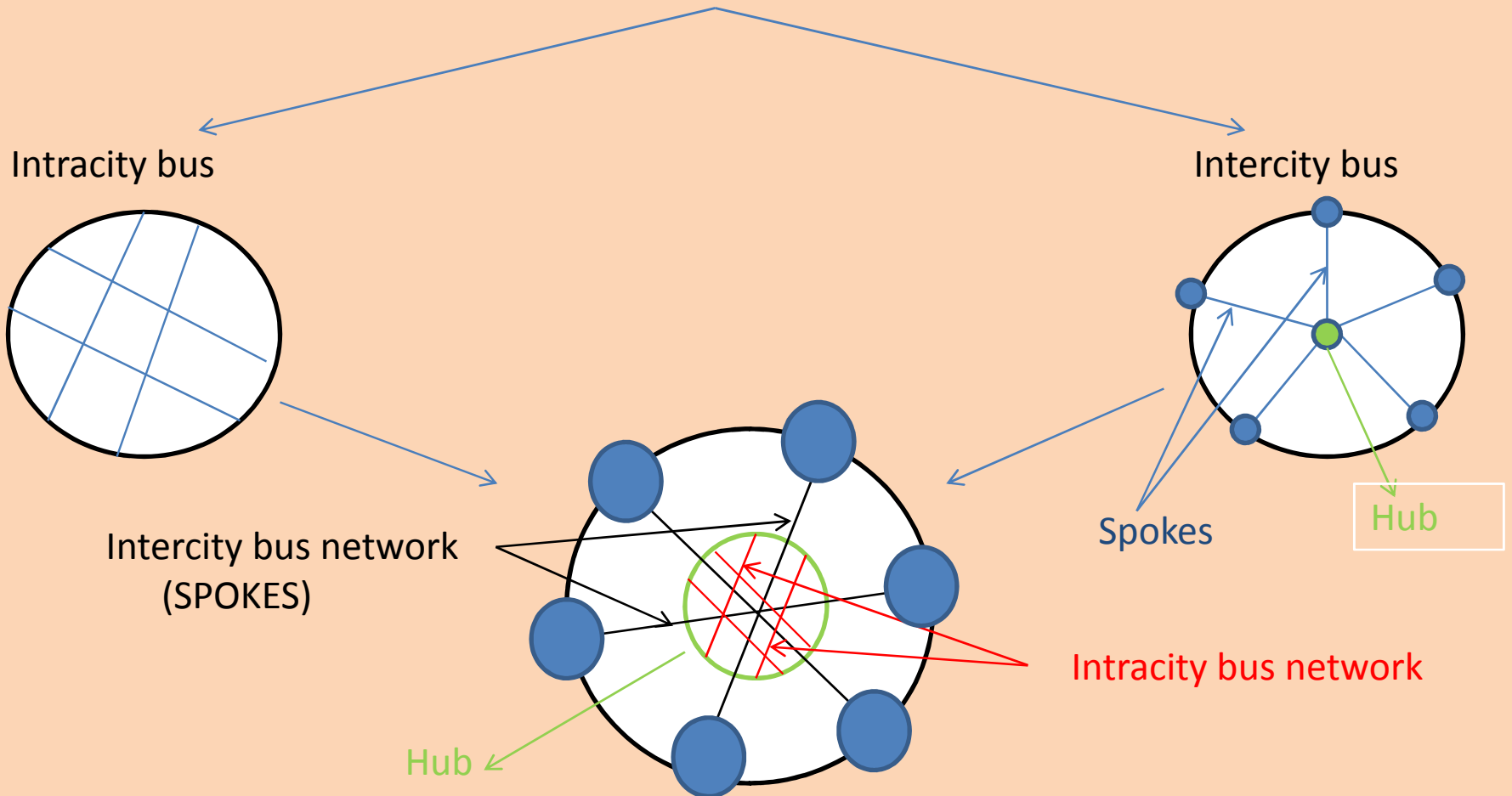


Hubs and Spokes Model



# Types of Bus Services

## Bus Services



Hubs and Spokes Model based Intra and Inter Bus Services

# Cluster Detail (indicative)

Sr. No.	City	Cluster Cities
1	INDORE	KHANDWA, KHARGONE, DHAR, JHABUA, RATLAM, UJJAIN, DEWAS, BHOPAL, SHAJAPUR
2	UJJAIN	NEEMUCH, MANDSAUR, RATLAM, INDORE, DEWAS, SHAJAPUR, RAJGARH
3	DEWAS	MAKSI, SONKATCH
4	BURHANPUR	KHANDWA, DHAR, DEWAS, BADWANI, JHABUA
5	KHANDWA	BURHANPUR, SANAWAD, PANDHANA, MUNDI
6	MORENA	BHIND, SHEOPUR, GWALIOR, DATIA
7	BHIND	MAU, LAHAR, MAHEGAON, ATER
8	GUNA	RAJGARH, SHIVPURI, GWALIOR, VIDISHA, ASHOKNAGAR
9	SHIVPURI	KARERA, KOLARAS, NARWAR
10	CHHINDWARA	SEONI, BALAGHAT, BETUL, HARDA, ITARSI
11	BHOPAL	SEHORE, RAISEN, HOSHANGABAD, VIDISHA, RAJGARH, SHAJAPUR, UJJAIN, INDORE, DEWAS
12	JABALPUR	MANDLA, DINDORI, NARSIGHPUR, KATNI, SEONI, DAMOH
13	GWALIOR	MORENA, BHIND, DATIA, SHIVPURI, SHEOPUR, GUNA
14	SATNA	BIRSINGHPUR, MAIHAR, RAMPUR BAGHELAN, MAJHGAWA, AMARPATAN
15	SAGAR	CHHATTARPUR, TIKAMGARH, DAMOH, BINA, KATNI, PANNA, SATNA
16	RATLAM	SAILANA, JAORA, BADNAWAR AND PETLAWAD
17	REWA	SIDHI, SATNA, SINGRAULI, PANNA, CHATTARPUR, KATNI, UMARIA, SHAHDOL
18	KATNI	UMARIA, DINDORI, JABALPUR, PANNA
19	SINGRAULI	SINGRAULI
20	VIDISHA	BAIRASIA, GANJBASODA, RAISEN



# Proposed Fleet (type and number) under AMRUT

Sr. No.	City	PROPOSED FLEET REQUIREMENT			
		No of Required buses	Standard Semi Low Floor	Midi Buses	Articulated
1	<b>INDORE</b>	199	114	80	5
2	<b>UJJAIN</b>	35	0	35	0
3	DEWAS	40	0	40	0
4	BURHANPUR	37	0	37	0
5	KHANDWA	30	0	30	0
6	MORENA	47	0	47	0
7	BHIND	56	0	56	0
8	GUNA	57	0	57	0
9	SHIVPURI	50	0	50	0
10	CHHINDWARA	67	0	67	0
11	<b>BHOPAL</b>	231	183	43	5
12	<b>JABALPUR</b>	158	136	22	0
13	<b>GWALIOR</b>	144	0	144	0
14	SATNA	66	0	66	0
15	SAGAR	49	0	49	0
16	RATLAM	50	0	50	0
17	REWA	66	0	66	0
18	KATNI	76	0	76	0
19	SINGRAULI	38	0	38	0
20	VIDISHA	57	0	57	0
	<b>Total</b>	<b>1553</b>	433	1110	10

# Proposed Financial Inlay

Sr. No.	CITY	PROPOSED FINANCIAL INLAY FOR BUSES	PROPOSED FINANCIAL INLAY FOR ANCILLARY INFRASTRUCTURE	TOTAL FINANCIAL INLAY FOR BUS SERVICE
		(CRORE Rs.)		
1	INDORE	91.62	26.63	118.25
2	UJJAIN	9.93	7.53	17.46
3	DEWAS	11.4	3.95	15.35
4	BURHANPUR	10.5	4.24	14.74
5	KHANDWA	17.6	6.31	23.91
6	MORENA	13.4	5.24	18.64
7	BHIND	15.89	6.18	22.07
8	GUNA	16.2	6.29	22.49
9	SHIVPURI	14.2	5.75	19.95
10	CHHINDWARA	19.1	6.34	25.44
11	BHOPAL	150.88	24.91	175.79
12	JABALPUR	116.50	26.29	142.79
13	GWALIOR	55.52	12.97	68.49
14	SATNA	25.55	6.83	32.38
15	SAGAR	19.75	5.75	25.5
16	RATLAM	19.78	5.6	25.38
17	REWA	25.55	6.83	32.38
18	KATNI	29.19	7.63	36.82
19	SINGRAULI	14.61	4.9	19.51
20	VIDISHA	21.36	5.16	26.52
	<b>Total</b>	<b>698.5</b>	<b>185.3</b>	<b>883.8</b>

- **CAPEX based VGF**

PARTICULARS	By operator/ SPV	Source of Funding	REMARK
Purchase of City Bus	By Operator	By (GoI + GoMP)	SPV will provide VGF on CAPEX and operator will provide buses.
Operations of City Bus	By Operator	By Operator	Operator will operate and bear the operation cost
Maintenance	By Operator	By Operator	Operator will bear the maintenance cost
Advertisement	By SPV	Through Advertisement vendor	SPV will select vendor & advertisement revenue will be shared between operator and SPV in 50:50
Pass	By SPV	Through pass vendor	SPV will select vendor & advertisement revenue will be shared between operator and SPV in 90:10
Establishment + O&M of TIMCC	By SPV	By SPV	SPV will select vendor and the vendor will procure, operate and maintain TIMCC. SPV will enter into AMC with the vendor.

# Action Plan

- Revision of the DPR.
- Pre-requisites and reforms required for successful city bus operation.
- Finalization of Implementation Strategy for making city bus system financially viable.
- Arrangement of Deficit Amount (532.3 crores).
- Finalization of RFP Documents for procuring Buses and Vendors along with completing the Bid Process in an Integrated approach.
- Appointment of Owners support and Strategic Consultant.
- Procurement of Buses and Vendors (Operator, Advertising Agency, Pass, TIMCC, etc.)
- Dry Run, Trail Run followed by Commercial Operation.



# Action Plan : Implementation Strategy For Sustainable City Bus System

- **VGF** based Contracting Strategy.
- Identification of viable Clusters (Intra & Inter), number of buses, minimum headway and issuing permit.
- Preparation and Implementation of **RRP** : No parallel operation of other public transport modes to city bus routes.
- Issuing of permits as per **RRP** for both Inter as well as Intra city bus.
- Strategy for making Bus operations financially self sustainable.
- Integration of Bus Service with other modes (Multi Modal Integration).
- Maintenance provision for entire life cycle/ contract period (AMC as per applicability).

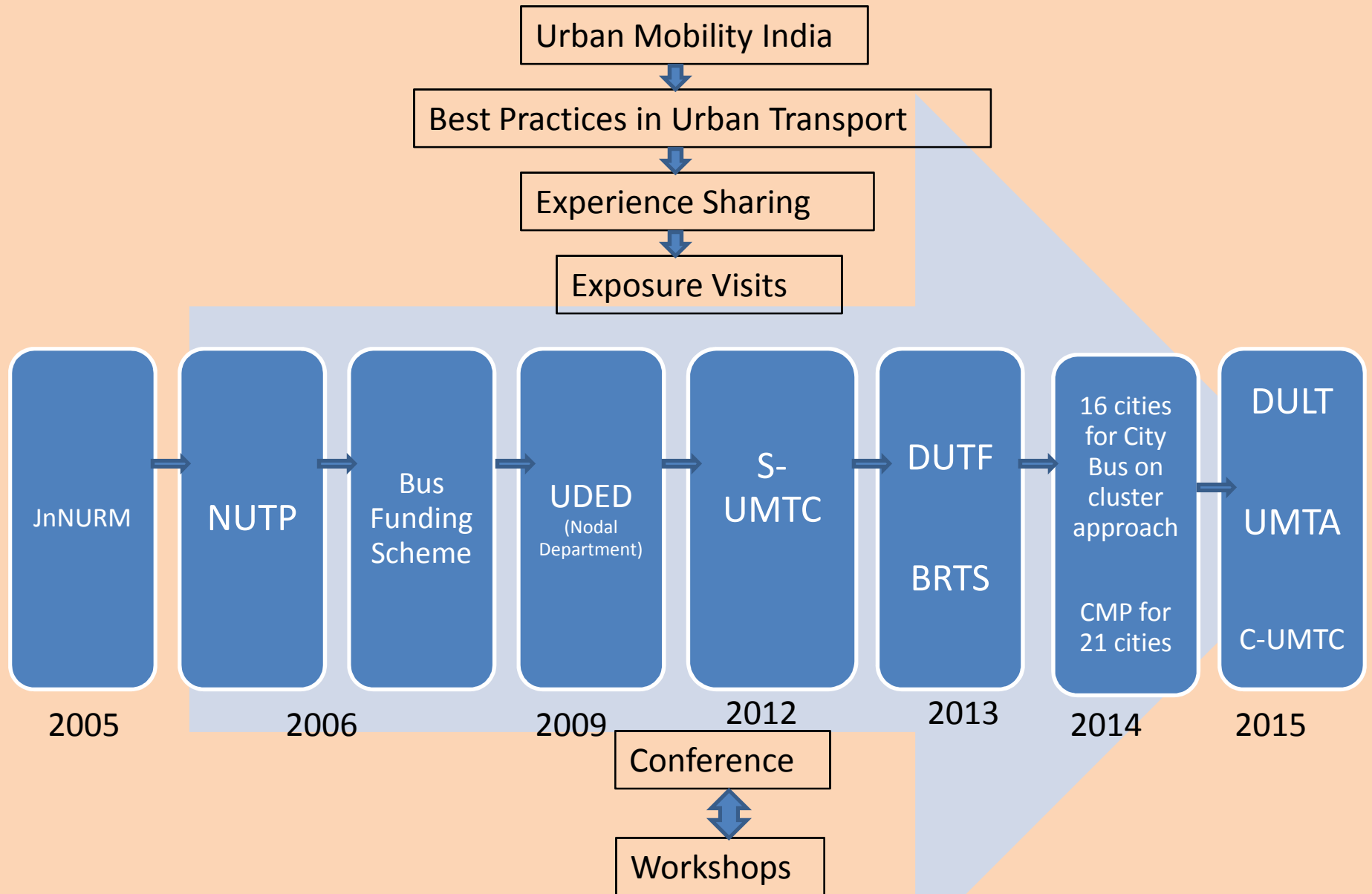
# Action Plan : Arrangement of Deficit Amount

- Public Private Partnership (PPP).
- Funding from State DUTF, based on Viability Gap Funding (cap up to 40%).
- Funding from City DUTF.
- Funds may be arranged through Additional Assistance to ULBs. (Bilateral/ Multilateral funding).

# Project Timeline

Task / Duration	1	2	3	4	5	6	7	8	9
<i>DPR Revision</i>	█								
<i>Fulfillment of Pre-requisites and Reforms (including RRP)</i>	█	█							
<i>Owner Support and Strategic Consultant</i>	█	█							
<i>Finalization of the RFP</i>	█								
<i>Bid Process management</i>	█	█							
<i>Procurement of Buses and Vendors</i>					█	█	█		
<i>Infrastructure and other requirement for PT Operation</i>	█	█	█						
<i>Dry, Trial Runs</i>					█				
<i>Commercial Operation of Buses</i>						█			

# Background



## FURTHER ISSUES AND PROBLEMS:

- Lack of comprehensive Urban Transport policy in the state.
- Unorganized public transport
- Multiplicity of agencies and lack of integrated and accountable agency
- Financing
- Congestion.
- Capacity building
- Lack of roadmap and blue print for Urban Public Transport.
- Other problems faced in Developing countries/ states.
- Lack of sophisticated Institutional mechanism



## VISION REDEFINED

Designing ***Blue print*** for development and expansion and regulation of Public Transport in the state of Madhya Pradesh

# Methodology for identification for proposals for issues and problems

- SWOT analysis
- GLOCAL Approach
- SMART Solutions

# SWOT

## Strength

- Visionary leadership, inclination towards Public Transport committed and experienced section in charge
- Subject of Urban Transport has been transferred to Urban Development Department
- UMTA-DULT reform agenda by GoI

## Weakness

- Only one officer, no supporting Government official and trained clerical staff (Not even single)
- Lack of Professional Staff and resources(Not even proper seating arrangement for Transport Section)

## Opportunity

- Partial Organized Public Transport only in few cities- cities can be provided organized Public Transport
- Expansion of City Public Transport in all parts of the State
- UMTC can be a probable alternate for MPSRTC

## Threat/Challenge

- Unorganized PT is a probable threat
- Situation may deteriorate
- Constitution of C-UMTC
- Bringing all public Transport under one umbrella
- Resistance of Transport Department and monopolistic attitude

# GLOCAL

- Global + local = Glocal
- Think globally, act locally
  
- SMART APPROACH
  - S-SPECIFIC
  - M-MEASURABLE
  - A-ACHIEVABLE
  - R-REALISTIC
  - T-TIME BOUND IMPLEMENTATION

# Proposals for the issue and problem on the basis of Singapore and other experiences

Issues/Problems	Solution/Proposal	Reason for Proposal	Feasibility
Lack of comprehensive UT policy .	Preparation of State Urban Transport policy	Will act as guiding document for PT enhancement	Very much possible and realistic
Unorganized public transport	Organizing PT with help of Policy/ Road map and Institutional arrangements	Systematic and regulated development of PT	Feasible but will require comprehensive roadmap and political will.
Capacity building	Institutional& personnel through integrated institutional mechanism	Will ensure effective implementation of PT projects	Realistic and doeable



Issues/Problems	Solution/Proposal	Reason for Proposal	Feasibility
Lack of integrated and accountable agency	Constitution of Integrated, apex and empowered PT authority both at state and city level with technical cells	For integrated, accountable and time bound development of PT	Realistic, very much Doable, but will require changes in rules and regulation.
Financing	Constitution of dedicated urban transport fund with dedicated and innovative sources	For the implementation of PT projects and other activities	Possible, but PT should be brought under priority agenda of the Govt
Congestion	Route rationalization plan and availability of Public transport facilities	Travel demand management and Mobility management	Possible but it will take long time and resources
Lack of Roadmap	Preparation of state UT master plan	It will act as blue print	Realistic, possible comprehensive knowledge, study of best practices

Inputs from all the stake holders including officials, public representatives, operators and experts



Final Road Map and Strategy drawn after incorporating there comments and suggestions.

## Theme- A roadmap to develop Urban Public Transport in the state of MP.

- Vision -2020
- State Urban Transport Policy (SUTP)
- Mission for implementing Public Transport
- Scheme (could be called Chief Minister scheme for Public Transport)
- Components:
  - State Public Transport Master Plan
  - Regional Master Plan
  - Metropolitan Master Plan
  - Comprehensive Mobility Plans
  - Institutional Mechanism
  - Capacity building
  - Allied policies and reforms
  - Allied plans
  - Implementation plan, financing and strategy
  - Infrastructure projects, IEC activities, pilot projects, reforms

# Vision

Organizing Urban Public Transport in the State of Madhya Pradesh by bringing all Public Transport mode under one umbrella through integrated dedicated and empowered Urban Transport Agency (C-UMTC/UMTA)

# State Urban Transport Policy (SUTP 2016)

- Introduction and background
- Need for policy- Issues for establishing the need for policy
- Vision
- Objectives and goals
- Components and guiding principles
- Strategy for realizing policy objectives.
- Institutional arrangement (implementation, operation, maintenance, supervision, monitoring, evaluation and review)
- Financing (constitution of DUTF)
- Reforms and capacity building
- Communication and outreach plan
- Identification and prioritization of the projects
- Implementation of Pilot projects
- Legal and administrative issues.
- Regulatory provisions.
- Review of the policy



# Annexure

1. National Urban Transport Policy
2. Reforms expected by GOI in consonance of NUTP
3. Status and data of Urban Public Transport in the state of MP
4. State UMTA and City-UMTA structure
5. Other documents required to support policy.

# Mission

<b>Mission statement</b>	<b>“People mover of the state”</b>
<b>Strengthening and formalizing public transport</b>	Organizing Public Transport in Cities of Madhya Pradesh
<b>Study Plan DRPs (2017)</b>	CMP, RRP, Projects IEC plan
<b>Policy Scheme and Rules (2016)</b>	SUTP , other policies and rules
<b>Institutional arrangement (2017)</b>	UMTA, STU, DULT, SPV formation and Notification
<b>Supervision, Monitoring, controlling coordinating and regulation and regulatory mechanism (2017)</b>	Setting up of state/Regional/city UMTA (Act and rules)

# Mission

<b>Reforms ( 2017)</b>	<b>1. All Public Transport Modes under one umbrella</b>
	<b>2. Jnnurm-Reforms-DUTF</b>
	<b>3. Jnnurm extension-Waiver of taxes, periodic revision of fares</b>
	<b>4. ITS based public transport</b>
<b>Infrastructure (2019)</b>	<b>1. Up gradation of bus stand and provision of new bus stand and terminals</b>
	<b>2. Provision of Depots</b>
	<b>3. FOBs</b>
	<b>4. Bus stops</b>
	<b>5. TIMCC</b>
<b>Pre requirements/ Prerequisites ( 2016)</b>	<b>1. Formation of State transport undertaking (STU under The Motor Transport workers Act,1961)</b>
	<b>2. Scheme formulation (Nationalization of routes)</b>
	<b>3. Preparation of Route Rationalization Plan</b>
	<b>4. Pilot project based implementation/sensitization and orientation of stake holder and citizens through IEC plan</b>
<b>Financing mechanism ( 2017)</b>	<b>Dedicated Budget source DUTF ( including C- DUTF)</b>
<b>Phasing and Strategy for implementation ( 2016)</b>	<b>1. Mission cities 2. District Head quarters /AMRUT towns 3. Other Cities</b>

# Scheme

- ^^ ,slk gks yksd ifjogu  
gj “kgj dksbZ dj lds ogu\*\*
  - Cycle Rickshaw based Public Transport-Fazilka Model
  - E-Rickshaw based Public Transport- Cities of UP
  - IPT mode based Public Transport – Alwar Vahini
  - Mini/ Midi Bus – Cities of M.P and other cities of the country
  - Standard Buses/A.C Buses – Cities of M.P and other cities of the country
  - BRTS – Cities of M.P and other cities of the country
  - MRTS – Cities of M.P and other cities of the country
- Time Bound Implementation
  - Short term-
  - Mid term
  - Long term
- Nodal Implementation agency
- Institutional setup
- Phasing and Financing
- Pilot Projects

- Issues and problems
- ↓
- Analysis of issues and problems with reference to global best practices and local resources
- ↓
- Analysis of solutions with reference to Indian and global experiences
- ↓
- Issues to adopt global system and alternative analysis
- ↓
- Final proposal and solution to address issues and problems.

IDENTIFICATION OF INTRA AND INTER CITY ROUTES

- IDENTIFICATION OF HEAD WAY ( frequency )
- IDENTIFICATION OF VARIOUS MODES
- IDENTIFICATION OF CLUSTERS AND SUB CLUSTERS
- PREPARATION OF RRP
- DETERMINATION OF TOTAL NO. OF CLUSTER, ROUTES,  
VEHICLES AND INFRASTRUCTURE REQUIREMENT



# Strategy (Plan of Action)

- Road Map/ Blue Print for Public Transport



- Analysis of existing scenario , SWOT and analysis of requirement of all the cities on the basis of CMP/Travel Demand Profile and Strategy for SMART Public Transport and formulation of RRP



- Policies, Reforms, Studies, PFS and DPRs etc. for Urban Transport and allied activities



- Mission / Scheme to improve Public Transport



- Reform Agenda to be implemented



- Institution Building

(including effective implementation, supervision, monitoring, evaluation and review mechanism)



- Capacity Building



- IEC and Branding of Public Transport



- Pilot Project implementation



- Infrastructure and other Projects implementation

# Strategy (Phasing)

## First Phase

- Organizing Public Transport in the mission cities through adequate policy , reforms, Capacity building and implementation agenda.

## Second Phase

- Organizing Public Transport in rest 51 district headquarters of the State along with cities of religious, heritage and tourist importance

## Third Phase

- Implementation of Urban Public Transport Components viz. Bus Stand, Depot, Terminals, TIMCC and allied facilities

## Fourth Phase

- Expansion of Urban Public Transport in other ULBs in phased manner

## Fifth Phase

- Cluster based Public Transport through Regional Unified Metropolitan Transport Council



**Above Phases are indicative as per guidance of senior officials final strategy would be drawn**

**Phases could be implemented in parallel manner as per practicalities**

# Way Forward

- Finalization of Road Map for Urban Public Transport in the State (Specially organizing PT) and its time bound implementation.
- Strengthening PMU at the Directorate level and PIUs at the City level
- Empanelment of Agencies for various Urban Public Transport related Studies/Projects/DPRs and centralized monitoring and facilitation to ULBs
- Implementing Reforms
- Initiating Pilot Projects
- Implementation of infrastructure projects
- Directive from State Finance Commission to be issued to reserve a specific Percentage of Devolution for Urban Public Transport
- Linking devolution/grant with Public Transport related reforms
- Directive from State Government to ULBs reserve a specific Percentage of Budget for Urban Public Transport

**Any projects/proposal policy  
immediate action taken**

## IV. Any projects/proposal policy immediate action taken

- Constitution of state level unified metropolitan transport council
- RFP for proposal for preparation of parking, advertisement, TOD and Public transport Master plan
- Strengthening SPVs- Manager admin and Manager technical
- BRTS paced up
- Inter city AC buses from Bhopal to Indore
- **DPR for MRTS**
- Proposal for expansion of city bus system in the state
- Jan Taxi : a low cost/ budget taxi in the cities of Madhya Pradesh
- State parking policy
- State TOD Policy
- State Advertisement policy
- State urban transport policy

## IV. Any projects/proposal policy immediate action taken

- Policies
  - State parking policy
  - State TOD Policy
  - State Advertisement policy
  - State urban transport policy
  
- Plans
  - Parking master plan for Bhopal, Indore, Jabalpur, Gwalior and Ujjain
  - Advertisement master plan for Bhopal, Indore, Jabalpur, Gwalior and Ujjain
  - Public transport master plan for Bhopal, Indore, Jabalpur, Gwalior and Ujjain
  - TOD master plan for Bhopal, Indore, Jabalpur, Gwalior and Ujjain
  - Route rationalization plan



# Parking Policy and Rules

- Differential parking rates
- Rates linked to Collector Guidelines
- Area based Parking Plan
- Comprehensive city Parking plan
- Bundling and unbundling of parking lots
- Administrative and regulatory setup
- Dedicated urban transport
- Uniform rules for all ULBs of the States



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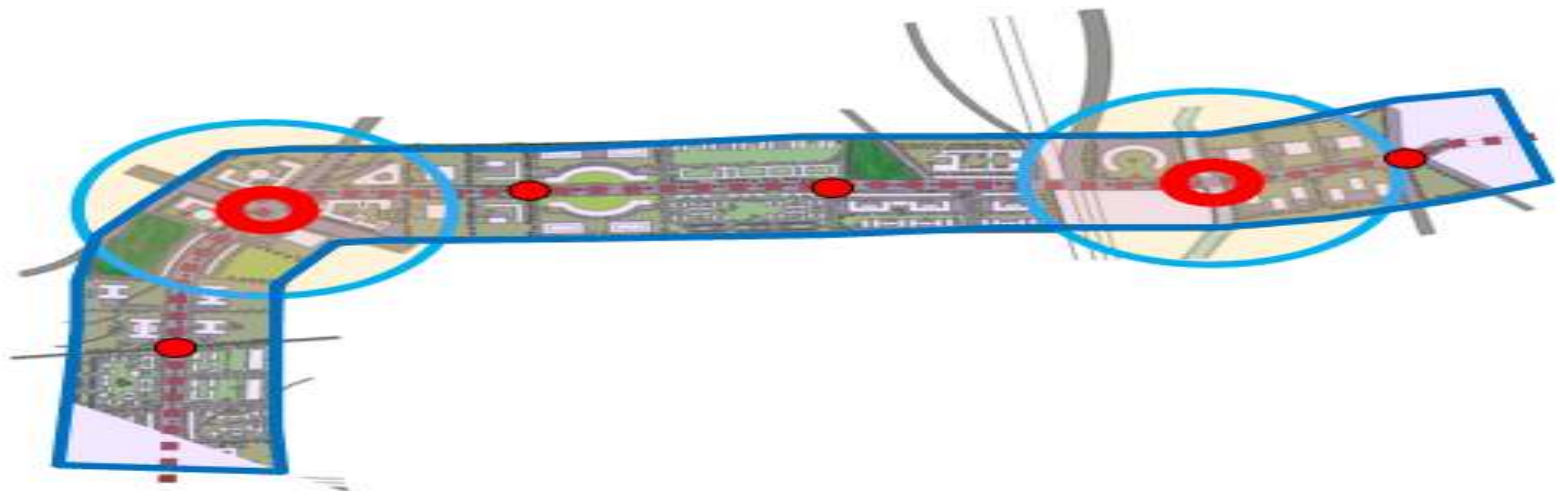
Policy and Guidelines  
for




# Transit Oriented Development of Major Cities in the State of Madhya Pradesh



# ***TOD Policy and Rules***

- Unlocking land values
- TP schemes
- Land Pooling and amalgamation
- Mixed land use

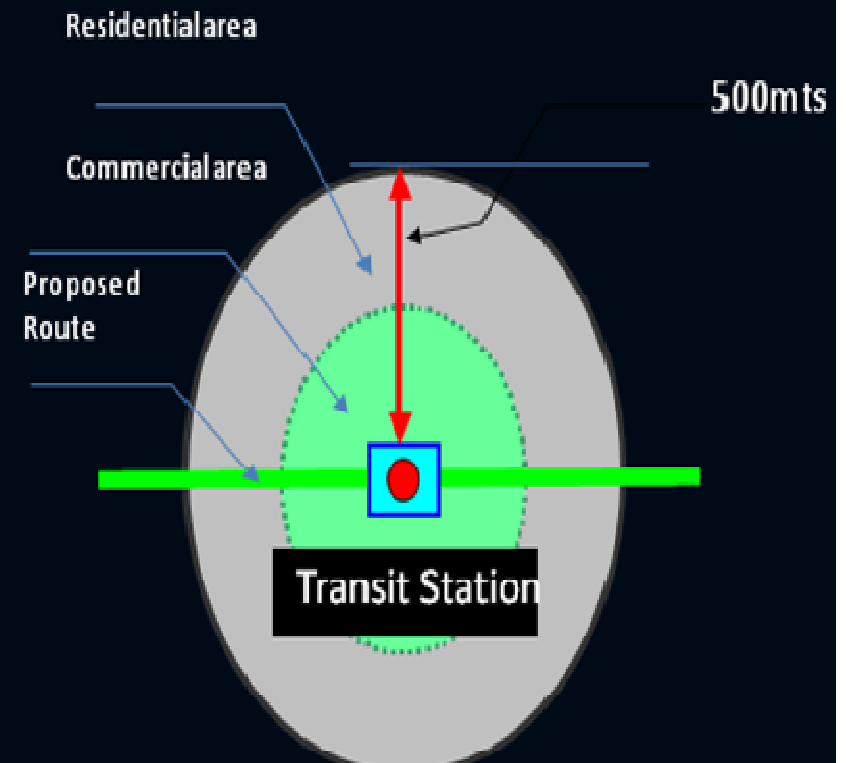
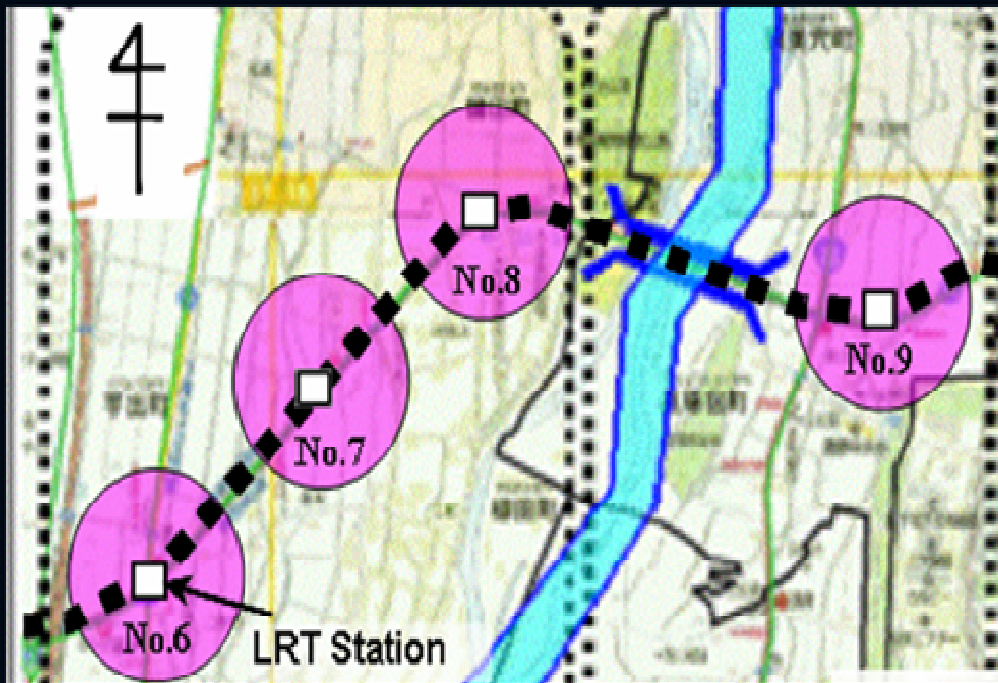


	BRT Bus Stop
	LRT Station or BRT Interchange
	BRT/LRT Line



# *TOD Policy and Rules*

- High FAR
- TDR
- TOD provisions in Master plan



# State Advertisement Policy and Rules

- Definition of Advertisement
- Prohibited Advertisement
- Advertisement zones
- Non Advertisements zones
- Population linked with types of OMD



# State Advertisement Policy and Rules

- Advertisement rates linked with Collector guidelines
- IT based Advertisement management
- Dedicated institute and Funding
- State rules for Advertisement
- Balanced between Commercial benefit and city aesthetics
- Quality v/s Quantity





# Outdoor Media Advertisement Rules

- Period of Compliance
- Application For Registration
- Types of Outdoor Media Devices
- Approval of Outdoor Media Devices (On Private Land)
- Evaluation And Approval
- Withdrawal And Amendment of Approvals
- Outdoor Media Devices On Municipal Authority Property
- Outdoor Media Devices On The Premises of Other Public Authorities
- Advertisement License Fees
- Assignment of License Fees
- General Requirements For Outdoor Media Devices
- Exempted Outdoor Media Devices And Advertisements
- IT Based Solution For Application, Renewal And Monitoring
- Maintenance of Outdoor Media Devices And Removal of Unauthorized Advertisements

# Master Plans

- Parking master plans
- Advertisement master plans
- TOD master plans
- Public transport master plans
- Traffic master plans
- NMT & Pedestrians master plans
- Route Rationalization plans

Proposed projects



# Radio TAXI-An Analysis

- High Fare
- Comparatively less in number (120<sup>th</sup> of the numbers of Auto)
- Not branded for poor and lower middle class



- Basically it is for **CLASS** and not **MASS**
- Public Transport should be for **Common Public** and should attract class



Thus Radio Taxi is not catering to need of

*Unregulated* Common Public *Unorganized*

# Conclusion

## Auto

- Suppose to have low fare ❌
- Suppose to meet the need of common public ❌
- It is neither low cost nor Safe nor Reliable ❌
- It is not serving its purpose for common man ❌
- Supposed to be for MASS ❌



## Radio Taxi

- Organized, GPS based metering, tracking system, reliable but high Fare ★ ❌
- It is serving its sector
- Serving CLASS ★





# Budget Taxi



# Nirbhaya Taxi

1/4dsoy efgykvsax ds fy;s1/2



# Eco (Green) Taxi





tu Auto





**G-Auto  
(Ahmadabad)**



**Tele Auto  
(Indore)**

**Jan Auto**



**E-Auto-Delhi & Cities of UP**



## Participation in Other Workshops

## Participation in Other Workshops

- Capacity Building tour by the World Bank.
- BRTS workshop by IUT.
- ToT Program organized by IUT.
- Training Program in Urban Transport (A) organized by JICA.
- Sustainable Public Transport Solutions by Green Mobility.
- TIMCC and NUTHLN Workshop.
- Workshop on BRTS organised by SUTP.
- Revision of NUTP workshop held at Bhopal by IUT  
..... and so on

**PROJECT / PROPOSAL / SUGGESTION FOR CENTRAL GOVT**

- Retention policy: officials imparted training should serve the **urban transport section/department for minimum number of years**
- Pilot projects should be invited from various state governments and cities, and selected projects be funded by the GoI, innovative projects could also be invited through city challenge method
- Model DPRs for Public transport infrastructure and allied components such as Bus stands, depots, terminals should be prepared and circulated to State governments.
- IUT should be made Nodal agency for capacity building activities such as Constitution of PMC, KMC, implementation of Pilot projects etc. and branches of IUT should be established
- Transport faculty should be arranged at every State Training Academy

# M.P. Urban Transport Initiatives at a Glance



## State Initiatives at a Glance

<b>Policy</b>	<b>State Urban transport policy SUTP, State Parking, Advt., TOD</b>
<b>Rules</b>	<b>Parking Rules, Advt Rules, TOD Rules</b>
<b>Reforms (State level)</b>	<ul style="list-style-type: none"> <li>• <b>Single Department to Deal with all Initiatives</b></li> <li>• <b>Umbrella institution for urban transport planning and co-ordination</b></li> <li>• <b>Setting up of Unified Metropolitan Transport Authority (UMTA)</b></li> <li>• <b>Dedicated Urban transport Fund (DUTF)</b></li> <li>• <b>Promotion of transits oriented development</b></li> <li>• <b>Periodic revision of fare</b></li> <li>• <b>Reforms city level</b></li> </ul>
<b>Reforms (City level)</b>	<ul style="list-style-type: none"> <li>• <b>Comprehensive Mobility Plan</b></li> <li>• <b>Dedicated Urban Transport Fund</b></li> <li>• <b>Advertisement Policy and Rules</b></li> <li>• <b>Parking Policy and Rules</b></li> <li>• <b>Modern City bus transport system</b></li> </ul>

# M.P. Urban Transport Initiatives at a Glance

## State Initiatives at a Glance

<b>Components</b>	<ul style="list-style-type: none"><li>• PT Modes identification (City wise)</li><li>• Traffic Plan</li><li>• NMT Plan</li><li>• Road Safety Audit and Road safety plan</li><li>• Pedestrianization plan</li></ul>
<b>Institutional Building</b>	<ul style="list-style-type: none"><li>• 16 - SPVs Constituted</li><li>• S - UMTC Constituted</li><li>• C - UMTC Conceptualized</li><li>• DULT Conceptualized</li><li>• UMTA draft Act prepared</li><li>• Guideline for UMTA prepared</li><li>• Senior city transport consultants appointed</li><li>• Junior city transport consultants appointed</li><li>• Chief operating officers for ~ 10 cities appointed and for remaining 10 cities under process</li></ul>



# M.P. Urban Transport Initiative at a Glance



## State Initiative at a Glance

### Capacity Building

Training by IUT to concerned all Transport Officials in the State

Orientation Programme by UAD to all New Appointed Officials

Capacity Building Programme organized by WRI

Gujarat Study visit of by transport officials

Conference on Cluster based PT system

Capacity building II programme organized by WRI

Leaders Training Programme organized under SUTP by CEPT  
Ahmedabad

# M.P. Urban Transport Initiative at a Glance

## State Initiative at a Glance

<b>DPRs</b>	<b>DPR for establishing city bus system in 20 Cities</b>
	<b>CMP for mission Cities</b>
	<b>Travel demand profile conceptualized for all 51 DHQ cities of the state</b>
	<b>Master plans (Advt, TOD, Parking, Public Transport) for all mission cities and Gwalior prepared</b>

# M.P. Urban Transport Initiative at a Glance



## State Initiative at a Glance

<b>Infrastructure</b>	<ul style="list-style-type: none"><li>▪ Land for Bus Stands, Depot, Terminals, TIMCC identified</li><li>▪ Infrastructures to be constructed on PPP/AMRUT/DUTF</li></ul>
<b>Pilot Project Conceptualized</b>	<b>Stack Parking, Jan Taxi, Jan Auto</b>
<b>Vision</b>	<b>Vision 2018, Redefined - Vision 2020 in making</b>
<b>Mission</b>	<b>State PT mission Conceptualized along with timelines</b>
<b>Scheme</b>	<b>State PT scheme Conceptualized and draft scheme prepared</b>
<b>Roadmap</b>	<b>Blue print Prepared along with State PT Master Plan prepared</b>
<b>MRTS</b>	<b>DPR Prepared, Feasibility Study for Jabalpur and Gwalior Under Process</b>

# M.P. Urban Transport Initiative at a Glance



## State Initiative at a Glance

<b>Initiative of the department towards Various Projects of GoI</b>	<b>Bhopal Selected for UMTA pilot study</b>
	<b>Bhopal Selected for DUTF Pilot Study</b>
	<b>Bhopal selected for TOD pilot Study</b>
	<b>GEF-4 assisted SUTP implemented in Indore</b>
	<b>GEF - 5 assisted ESCBS being implemented in Bhopal</b>
	<b>Expansion of PT from 4 to 20 Cities of the State under AMRUT</b>

**Background: A representative illustration of  
growth of Urban Public Transport in MP**

**CHANGING SCENARIO of Public Transport in Bhopal**

**CHANGING SCENARIO of Public Transport in Bhopal**

Timelines

**Till 2000**

Unorganized





# Background

Timelines

Till 2000

Unorganized

## Journey of Public Transport of Bhopal



# Background

## Journey of Public Transport of Bhopal

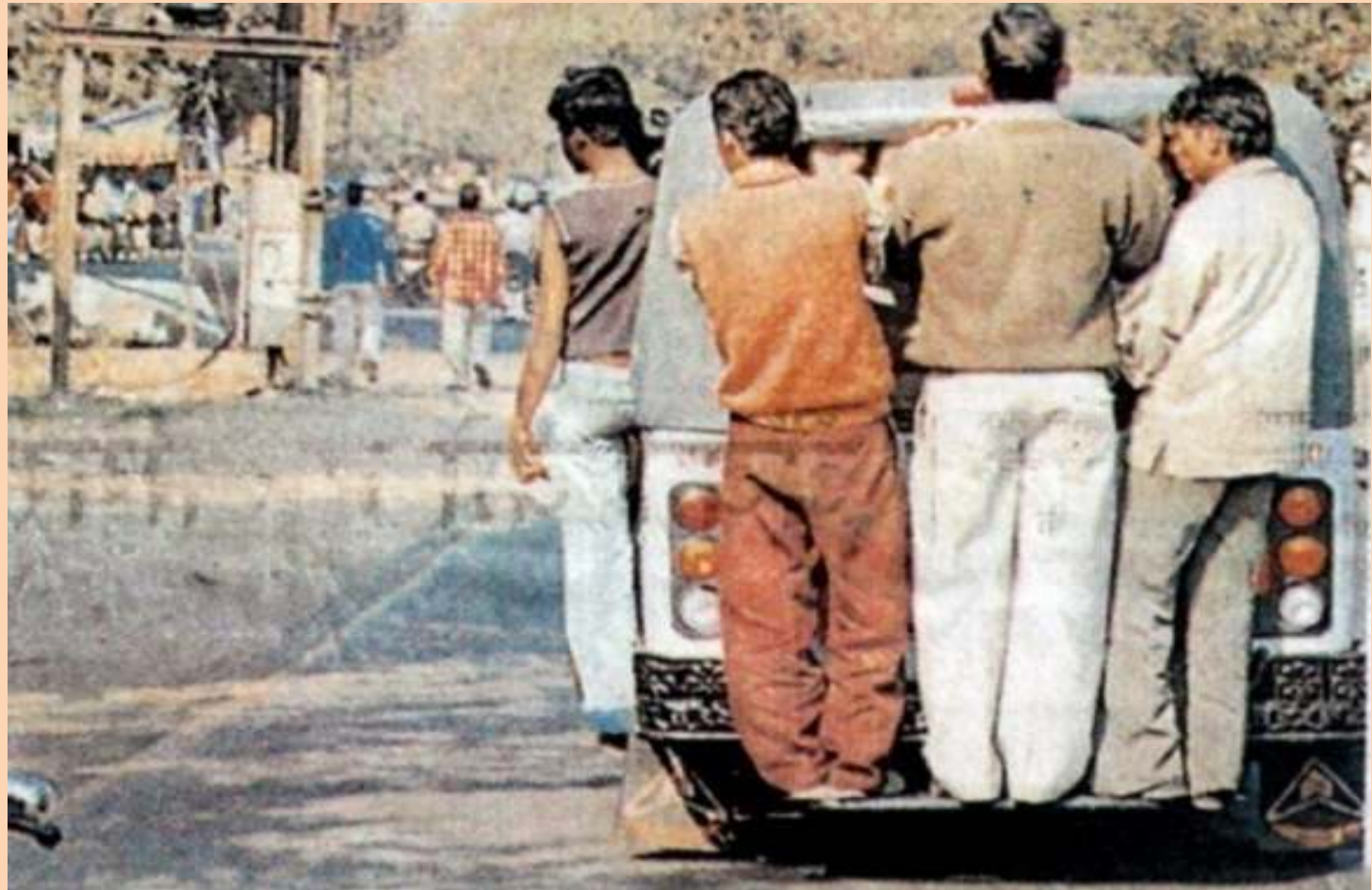
Timelines

Till 2000



2006

Unorganized





# Background

## Journey of Public Transport of Bhopal

### Timelines

Till 2000



2006



2012

Partially  
Organized



# Background

## Journey of Public Transport of Bhopal

### Timelines

Till 2000



2006



2012



2013



Partially organized

# Background

## Journey of Public Transport of Bhopal

### Timelines

Till 2000



2006



2012



2013



2022



.....Heading towards Metro

***MRTS some Glimpse***



# Overview of the Metro Projects



(Roshanpura Elevated Cross Section View)- Bhopal



**Indore Railway Metro Station Elevated and Underground**



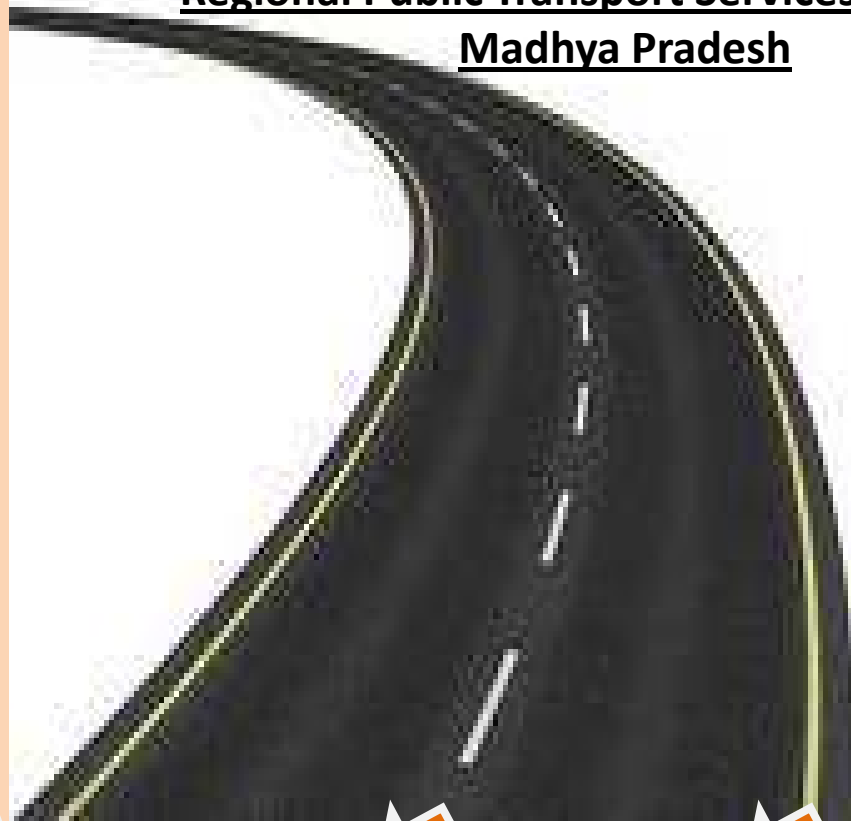
**Proposed Metro Station Design**





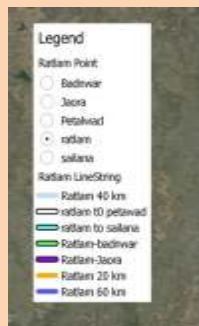
**A Road Map for Pilot Projects to establish Cluster based  
and Regional Public Transport Services in cities of  
Madhya Pradesh**

# A Road Map for Pilot Projects to establish Cluster based and Regional Public Transport Services in cities of Madhya Pradesh



Transforming Public Transport in the State

Cluster Based





# Learning of Singapore and Other Cities Through punch lines

1/4geus D;k lh[kk1/2

- **Moving City Not Vehicle – ERP**
- **Car's and Private vehicle are not the solution PT is the Solution – VQS**
- **Making every station a Place – TOD**
- **Planning is the mother of all systematic implementation – LTA**
- **Think Globally act Locally – Case study in Singapore**
- **Smart approach a PPT. by Participation in the Singapore.**



- **Crux of the thing is that Urban transport project are not only be seen as transport project rather these should be seen as Urban Transformation Project.**

## Singapore City

1965



2016



## New York City

1965

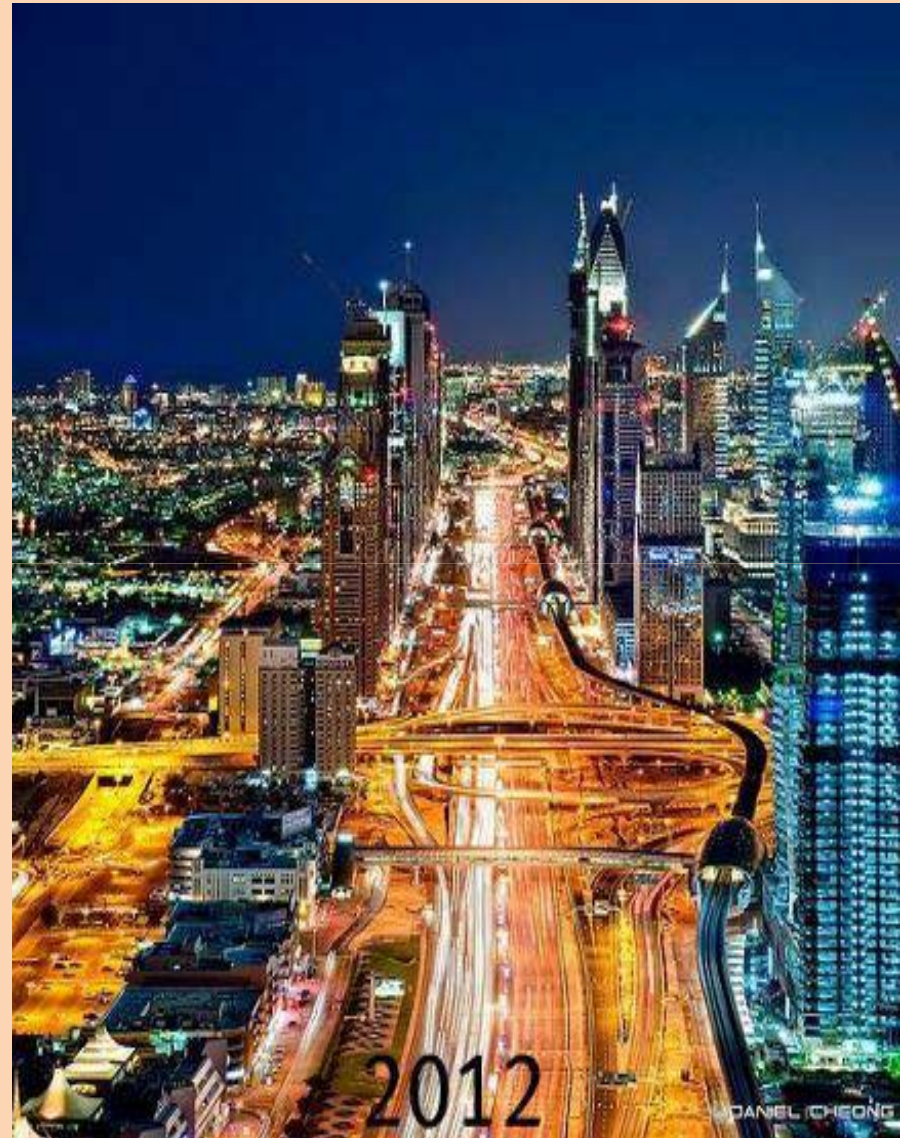


2016





# Dubai





These Are Humans



quoteapic.com

These Are Animals



Need  
of  
the  
our



**JAI HIND**

**Moving People Not Vehicle**