INTEGRATING PARA-TRANSIT SYSTEMS IN INDIA

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www.civitas.in
www.cppr.in

What Is Intermediate Para-transit (IPT)?

" Paratransit vehicles are a for-hire flexible passenger transportation that does not necessarily follow fixed routes and schedules. They provide two types of services: one involving trips along a more or less defined route with stops to pick up or discharge passengers on request. The other is a demand-responsive transport which can offer a door-to-door service from any origin to any destination in a service area"

IPT's in India

City	Type	Remarks
Alwar, Rajasthan	3 wheeled share autos (Vikram), Mini Vans	Run at around 7 notified routes seating around 15 people. 1310 vehicles launched as per Alwar Vahini scheme carrying 1,15,000 plus passengers
Jaipur, Rajasthan	Minbuses and Vikram Share autos	Operates in 36 routes carrying 4.5 lakh passengers
Mumbai Metropolitan Region	3 wheeled autos	Ordinary autos converted as share autos
Rajkot, Gujarat	Autorikshaw taxis called as Chakdas	Around 6000 chakdas covering 4 lakh passenger trips
Indore, Madhya Pradesh	Minbuses and vans, Tata Ace magic and Maruti Vans, LPG Autos	Around 500 minibuses and 550 mini vans, Vikram Share autos were banned
Chennai, Tamil Nadu	Vikram share autos, Tata Magic, Mahindra Maxximo	Around 12,000 excluding minibuses and vans
Lucknow, Uttar Pradesh	3 wheeled shared autos (Vikram)	Around 4000 autos

Growth of IPT's in India

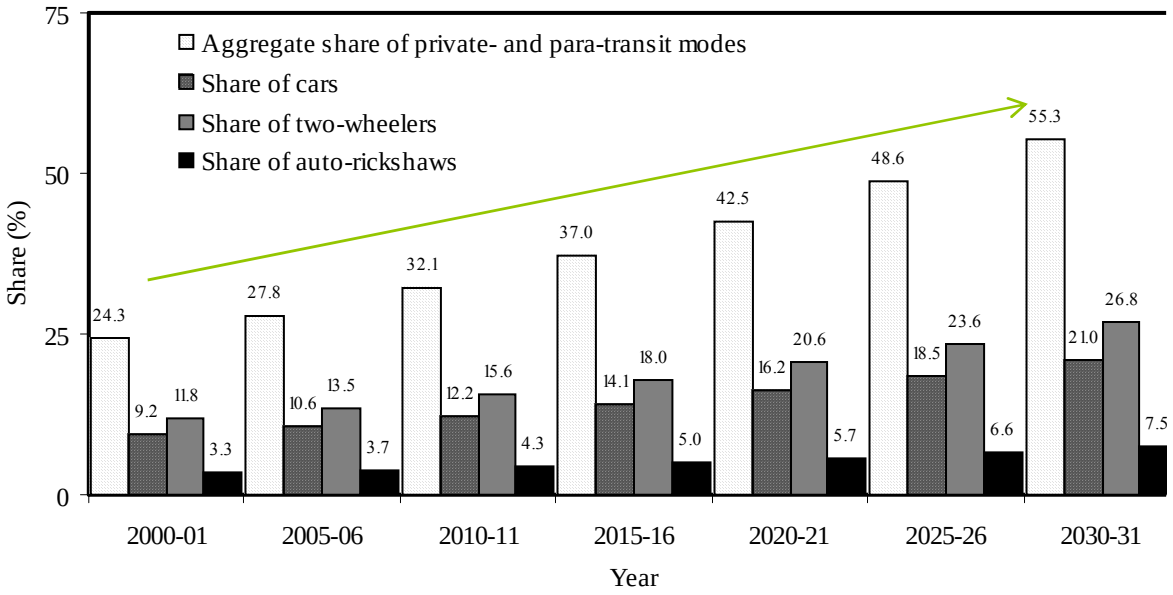

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Table 1: Travel Mode Share (%) in Different City Sizes

City	Population	Walking	Cycling	Two-Wheelers	Public Transport	Cars	IPT
Category 1-a	< 5,00,000 with plain terrain	34	3	26	5	27	5
Category 1-b	< 5,00,000 with hilly terrain	57	1	6	8	28	0
Category 2	5,00,000-1 million	32	20	24	9	12	3
Category 3	1 million-2 million	24	19	24	13	12	8
Category 4	2 million-4 million	25	18	29	10	12	6
Category 5	4 million-8 million	25	11	26	21	10	7
Category 6	> 8 million	22	8	9	44	10	7
National		28	11	16	27	13	6

Source: Ministry of Urban Development (2008).

Factors influencing Para-transit in India

- Longer travel time, Higher cost and Lack of connectivity, Reduced Ridership of major public transport systems: Access and Egress (31% IPT users in Delhi- TRIPP 2011; Speed reduction from 26-17 km/hr to 8-6km/hr :-Working Group on Urban Transport for 12th Five Year Plan)
- High cost of introduction and maintenance of mass public transportation
- Short Trip lengths: The average trip length in medium and small size cities is less than five kilometer
- High percentage of low income groups (15%-65% in slums; Geetam Tiwari, 2002)

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- Public Transport Accessibility Index vs. Para-transit Index (Raipur, MoUD, 2008)
- Creates employment opportunities
- They provide first mile-last mile connectivity
- Ideal feeder system for the MRTS, Metro/Mono Rail, BRTS etc

Issues

- Para Transit/ Share auto are not recognised as a Public Transport under NUTP or any policies
- Majority of the share autos ply without permission but cater to a large section of the population:- Contract Carriage
- IPT's work in an un-organised environment
- They can be enabled to solve the last mile connectivity issue

Learning's from Global Experiences

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South Africa – minibus-taxi, *amaphela*

Kenya – *matatu*

Tanzania – *daladala*

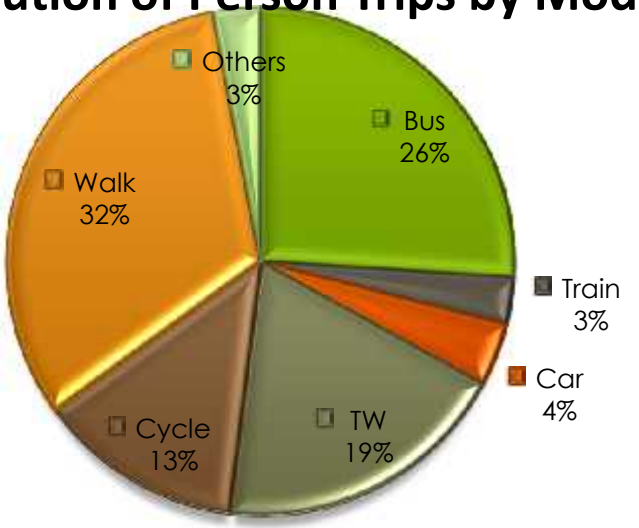
Case Study of Chennai, State of Tamil Nadu

CPPR/Civitas Urban Solutions- Chennai City Connect Foundation/ Shakthi Foundation, 2011

Transport scenario in Chennai, Tamil Nadu

Tamil Nadu Vehicular Modal Share (Pvt:Public)= 62:38
TN MVD Registration 2011:- 79% TW; 0.8% Buses; 1.9% LCV; 1.9% Taxi &Jeeps; 8.63% Cars
Chennai City IPT Share (Transport): 8.9 % Maxi Cabs (Sept, 2013)

Distribution of Person Trips by Mode



HHI Survey of the DPR for the Chennai Metro Rail Project, DMRC, 2005

Passengers served through Share autos (IPT) in Chennai

Source: CPPR/Civitas Urban Solutions- Chennai City Connect Foundation Study, 2011

25 share autos available for 10,000 Chennaites

The average number of round trips made by the Share Autos per day is 11 and the average kilometer run is 135.

14 passengers served per round trip

Total Passengers served- 14*11*12000= 18,48,000 passengers per day

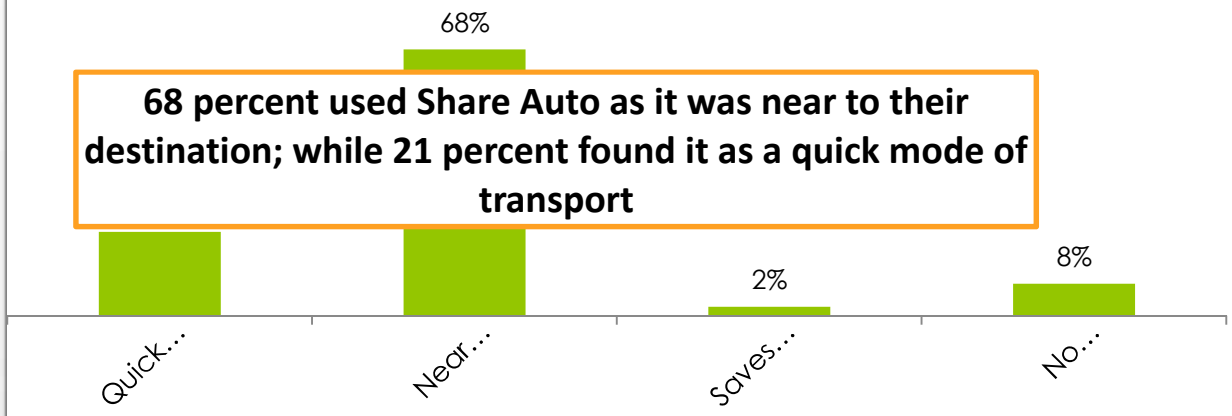
Comparative table between MTC Buses and IPT in Chennai

CATEGORY	Metropolitan Transport Corporation (MTC)	IPT/Share Auto
FLEET	3,421	12,000
NUMBER OF KILOMETERS RUN PER DAY	10,81,036	16,20,000
THE AVERAGE PRICE OF THE TOTAL FLEET	40 lakhs*3421=1368.4crores	3lakhs*12000=360crores
FUEL EFFICENCY	4.39	23(Avg)
NUMBER OF TRIPS MADE PER DAY	Around 44,000	Around 2,64,000
NUMBER OF PASSENGERS CATERED PER DAY	57.90 Lakhs [Avg.]	18.48 Lakhs (Avg)
COLLECTION PER DAY	2.31 crores [Avg.]	Rs.1.39 crores to Rs.2.09 crores per day.

Passengers- A comparison

	Suburban Trains	MRTS	Share Autos
Passengers per Day	9.6 lakh	70,000	18.48 Lakhs (Avg)

- Maximum length of a Share Auto trip is 5-6 km



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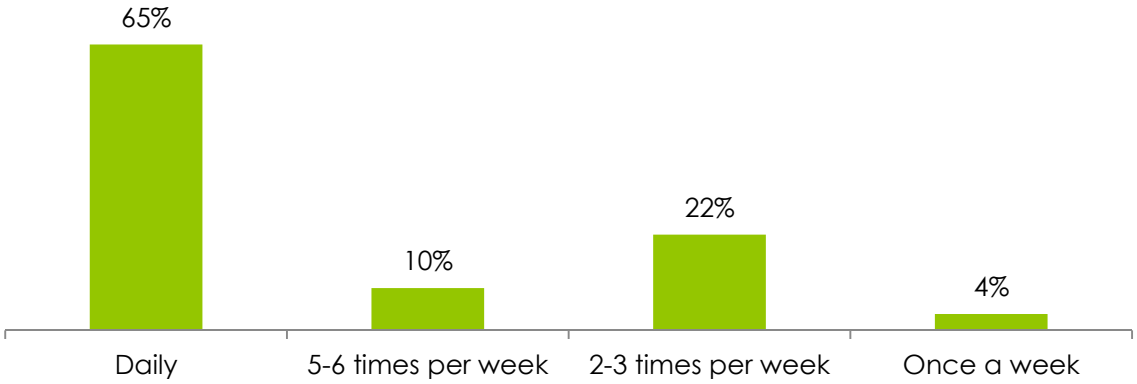
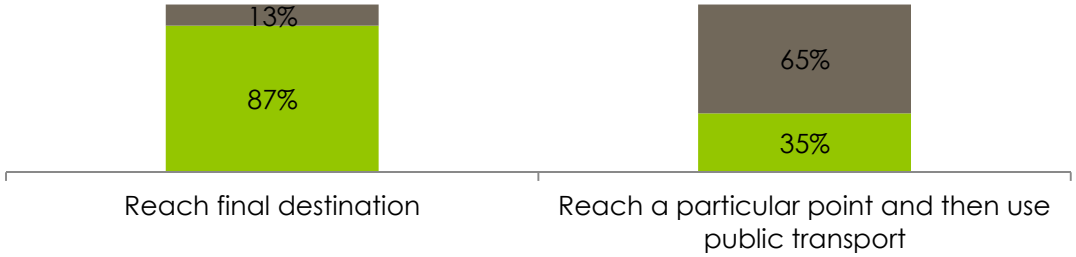
Majority of the passengers used share auto for daily purpose

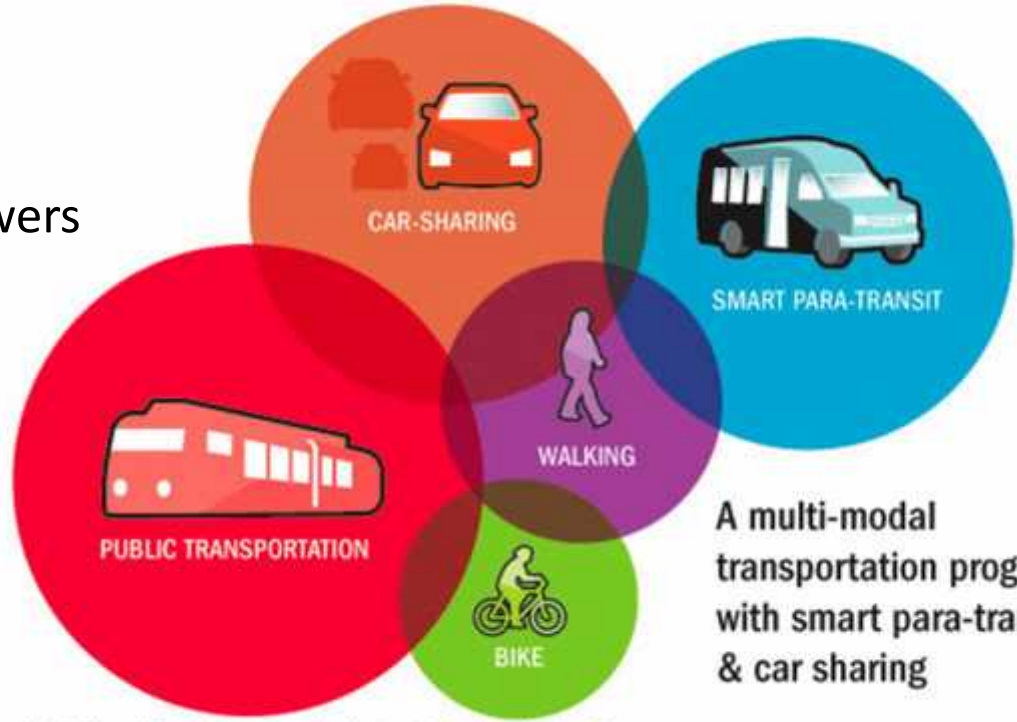


87 percent of the Share auto passengers use them to reach the final destination while 35 percent use it as feeder service to other modes



Integration

- Policy Integration
1. Administrative
2. Delegation of powers
3. UMTA
- Physical Integration
1. Urban Planning
2. Design
3. Land Use
- Fiscal Integration
1. Investment
2. Pricing and Fares
3. Common Ticketing



adapted from http://www.gflcarsharing.org/about-carsharing.htm

Major Suggestions

- Recognise Para Transit as a public transport mode- Suitable changes in NUTP – Regulation and monitoring (UMTA)
- Change in status of Maxi Cabs and share autos- Stage Carriages

  - Standardise permits and taxes

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- Integration- Metro Rail, Mono Rail, BRT systems etc
- Proper Feeder System Planning and Traffic Control
- Create Infrastructural facilities- Share auto stands, dropping points and parking and

  improving access
- Encouraging more investments in IPT's and Infrastructure development
- Technological innovation: Design and

Passenger Information system

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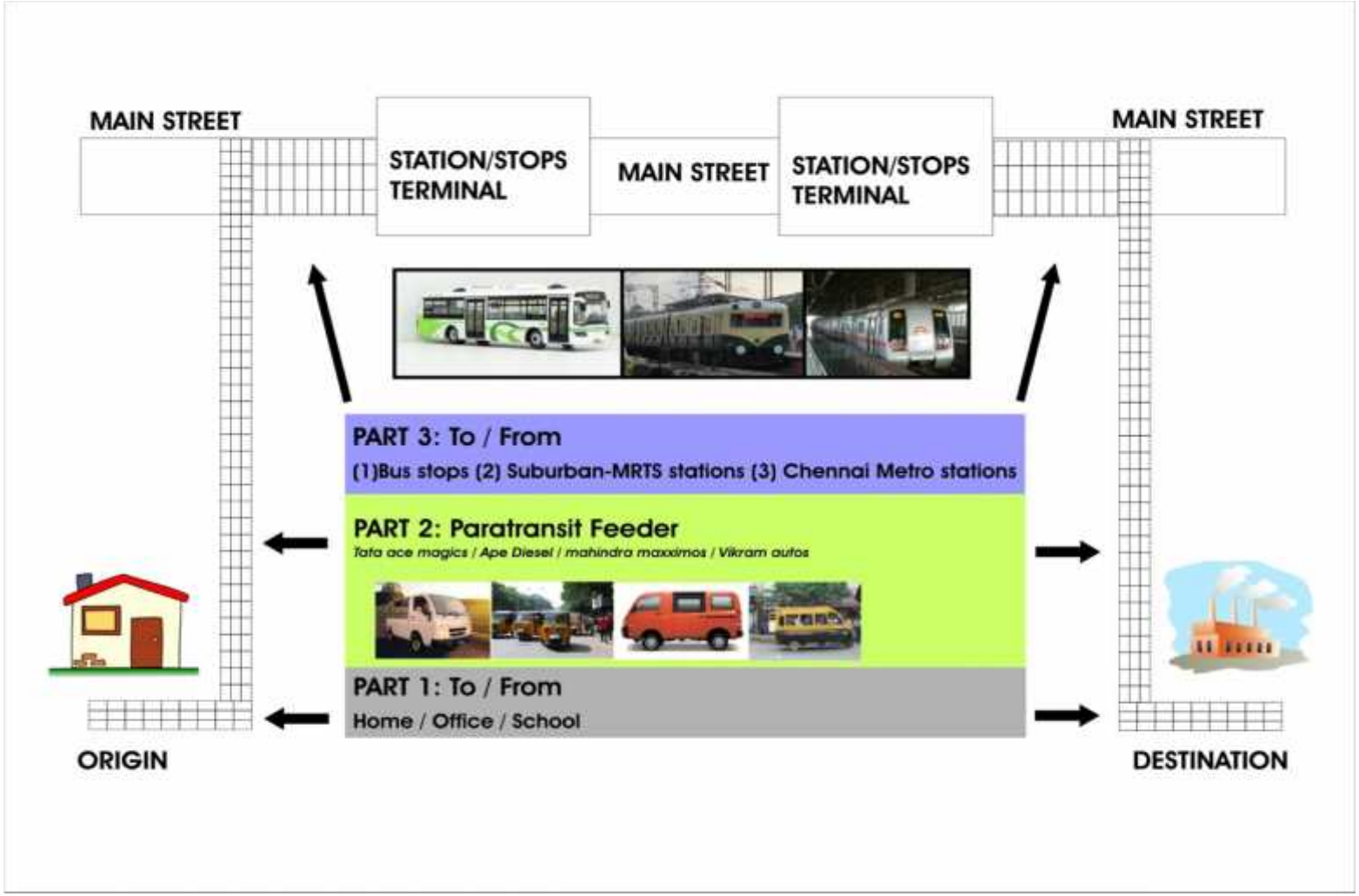
- Zone wise allocation of IPT operations for companies
- Develop ideal models for Revenue sharing through appropriate pricing models

A Model Integrated system



Benefits

- Increase in Ridership of existing Public Transport Systems
- Reduce in Modal share of Private Vehicles
- Time utility, increased productivity and economic growth
- Bridging Urban and Rural mobility, especially Urban poor
- Employment and livelihood opportunities
- Stepping towards Sustainable Urban Transport system

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Thank you..