

Asian Transport Outlook: Accessing Urban Transport Data

Sudhir Gota
Co-Team Leader, Asian Transport Outlook

**Decarbonising Transport in Azerbaijan Regional
Dialogue Event**

09-10, February 2023, Baku



Asian Transport Outlook: Introduction

Launched by ADB in 2020



To support the planning and delivery of ADB Transport related assistance



To support Transport Policy Making in Asia



To track Global Agreements on SDG, Paris Agreement Regional Aichi 2030 Declaration

Open data source

Regularly updated

51 economies and 460 cities

400+ Indicators over 2000-2020

Policy and financing

Multiple Sources

	ATO Products ↓	Coverage →	National	Urban
1	Sharable National Database (SND)		✓	
2	Sharable Urban Database (SUD)			✓
3	ATO Cost Database		✓	✓
4	Country Profiles		✓	
5	Policy workbook		✓	
6	Annotated repository of policy documents		✓	
7	Analytical Reports and presentations		✓	✓
8	User based web interface (Website)		✓	✓

Urban Database

Secondary - 460 UCs

101 indicators

(Jan 2023)

About 375 unique data sources

~ **80%** of indicators have multi-year data

~ **70%** of indicators have more than 1 source



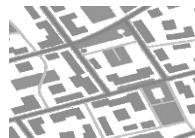
Primary - 41 UCs

180 indicators

(Jan 2023)



Socio-economic



Urban Form and Structure + Land use



Infrastructure



Transport Activity and Services



Access and Connectivity



Road Safety



Air Pollution and Health



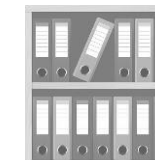
Climate Change



Miscellaneous

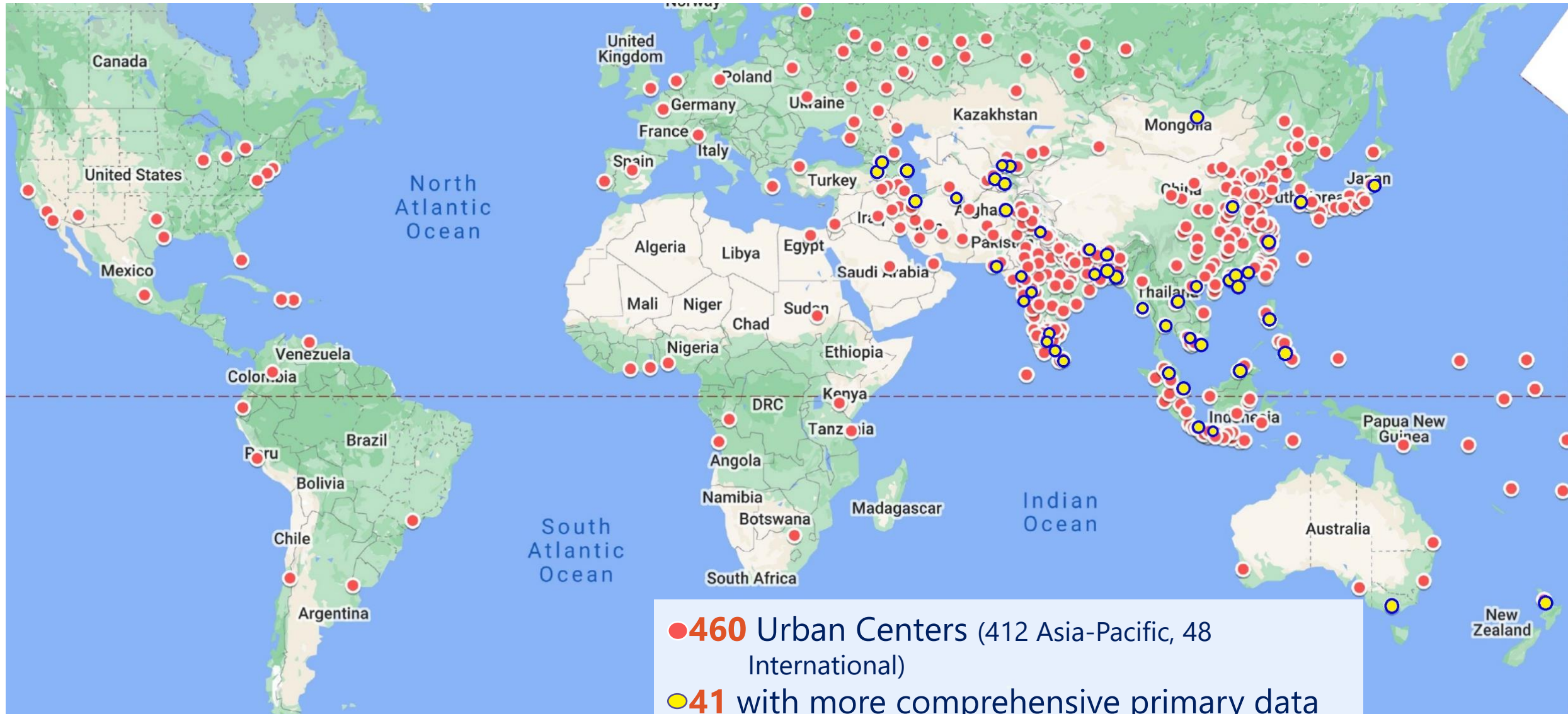


Urban Transport related targets



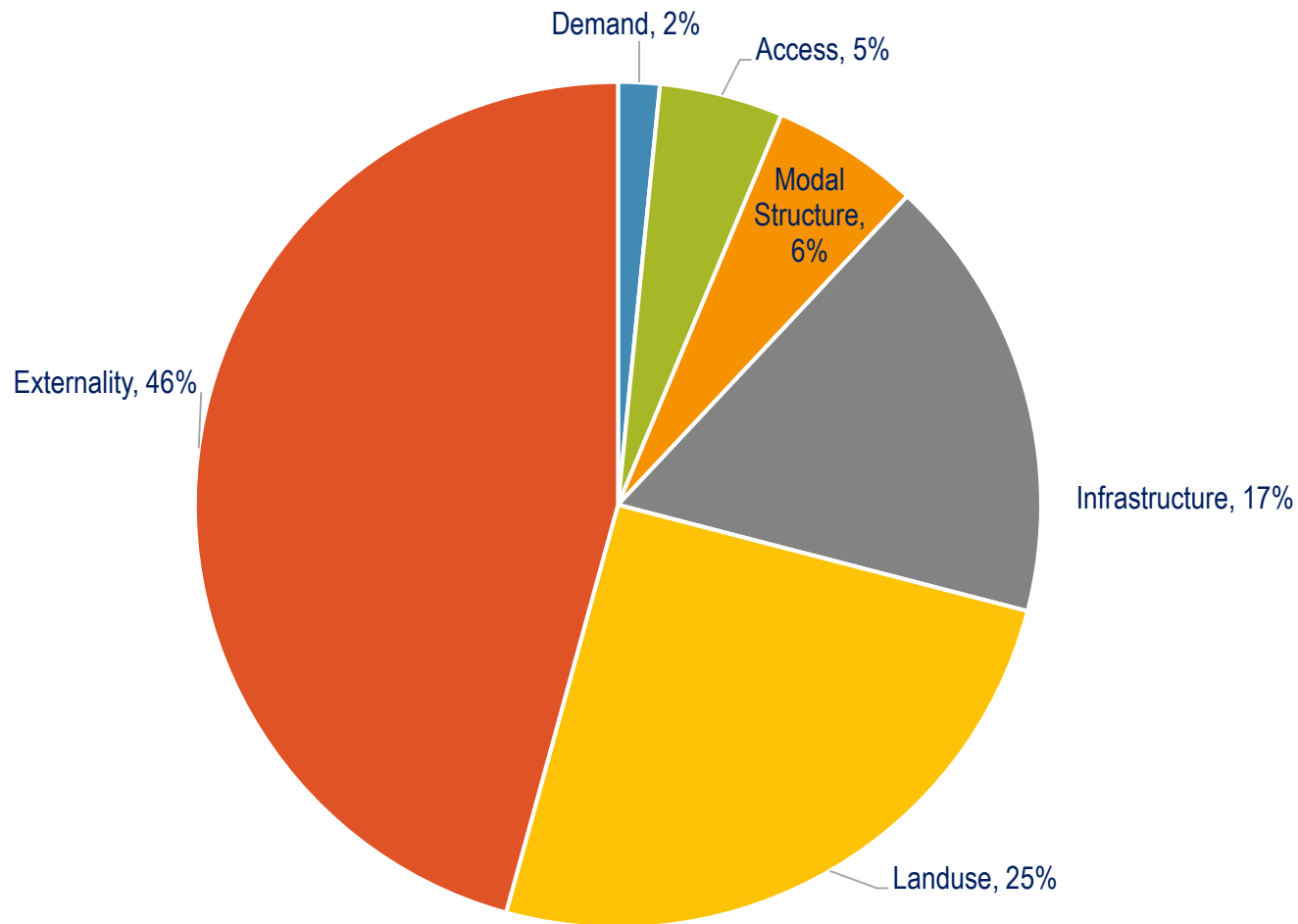
Urban Transport related policy documents

Urban Database: Coverage

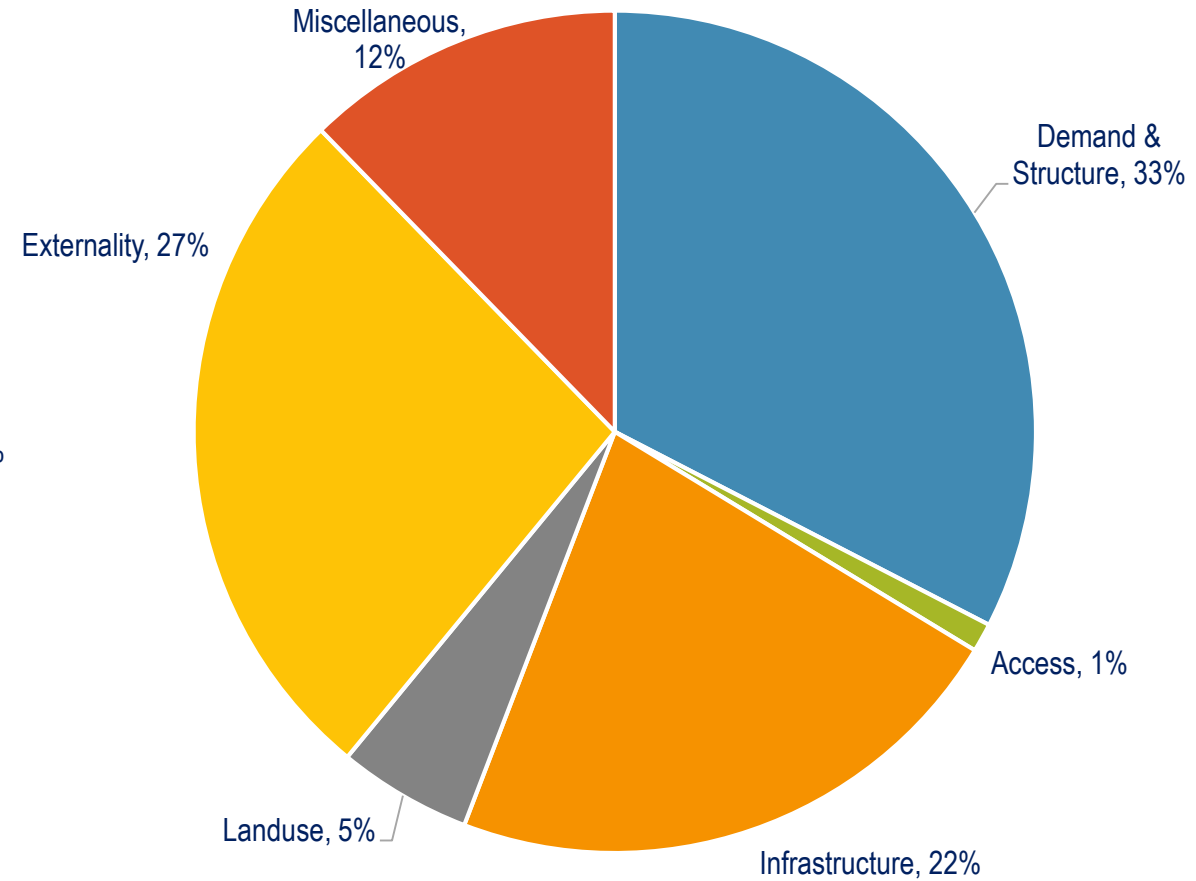


Urban Transport Data Availability

Urban Transport - Secondary Data Probability



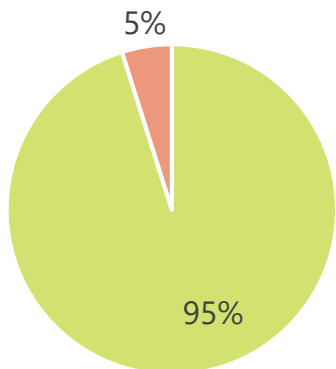
Urban Transport - Primary Data Probability



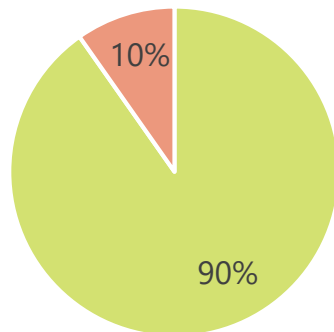
Primary Data: Coverage of the UCs sample



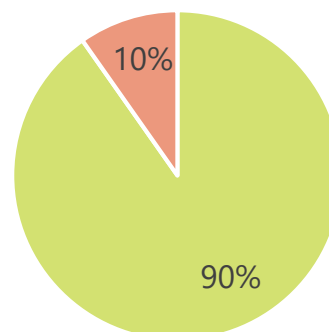
Modal split (Passenger)



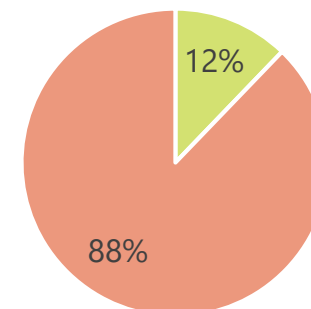
Road length total



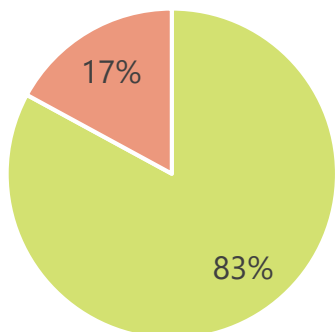
Registered Vehicles



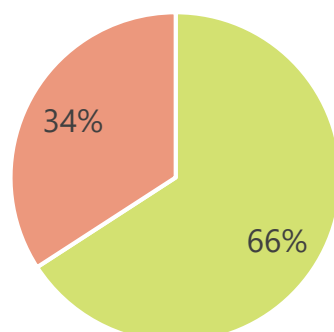
EV Registrations



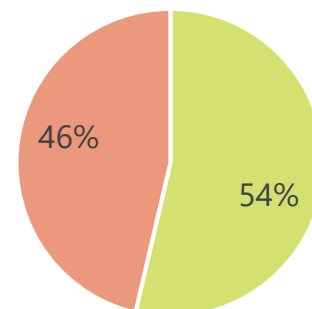
Access to Public Transport



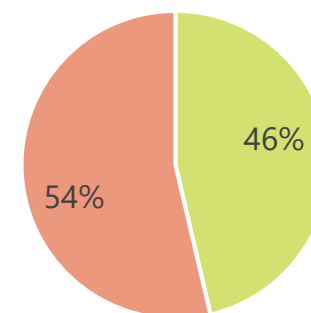
Ridership



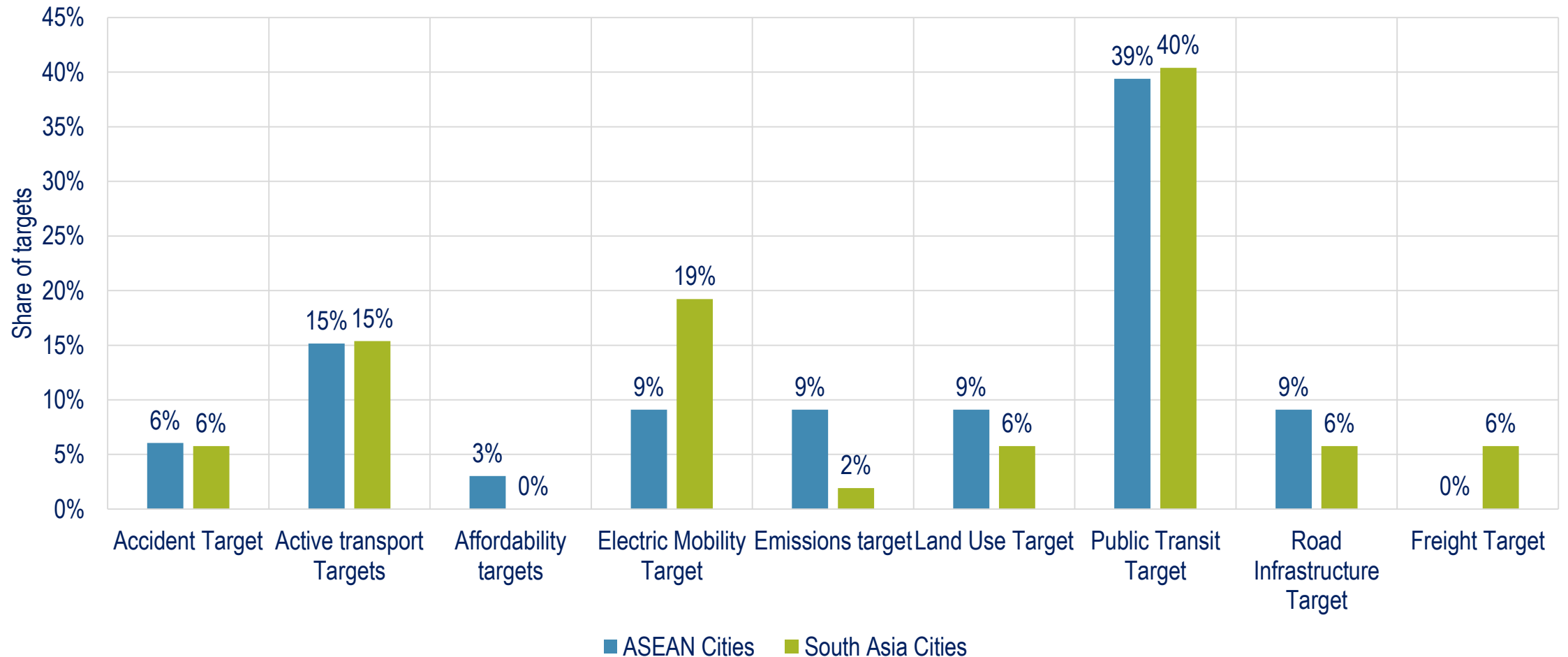
Average Trip Length



Household Transport Cost/ Share



Urban Transport Targets (41 Cities)



Targets recorded for **26/41** UCs
 Total of **338** targets
 Avg. **13** targets recorded per UC

Example - Bishkek

KGZ-1		Bishkek																													
<<< Table of																															
Indicator	Indicator ATO Code	Indicator	Unit	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Comments (if any)	Document	Source	Web Link	
Population	SEC-UDB-001	A	count									8,22,100	8,32,500	8,46,500	8,59,800	8,74,400													Social Trends Kyrgyz Republic 2007-2011, p.20	National Statistical Committee of the Kyrgyz Republic	http://www
Population	SEC-UDB-001	A	count							8,13,300		8,22,100	8,32,500	8,46,500	8,59,800														Social Trends Kyrgyz Republic 2006-2010, p.20	National Statistical Committee of the Kyrgyz Republic	http://www
Modal split (Passenger) - by trips - Public Transport	TAS-UDB-002	A	%												67														The Study on Improvement of Urban Transportation in Bishkek City of the Kyrgyz Republic, p.7-25	JICA	https://op
Modal split (Passenger) - by trips - Walk	TAS-UDB-004	A	%														28										No bicycle	The Study on Improvement of Urban Transportation in Bishkek City of the Kyrgyz Republic, p.5	JICA	https://op	
Vehicle registration (Car)	TAS-UDB-049	C	count															3,10,000	2,84,200	3,40,600	3,40,400	3,31,500						Social Trends Kyrgyz Republic 2015-2019, Table 12.3	National Statistical Committee of the Kyrgyz Republic	http://www	
Vehicle registration (Car)	TAS-UDB-049	C	count													2,36,300	2,72,900	3,10,000	2,84,200									Social Trends Kyrgyz Republic 2011-2015, p.134	National Statistical Committee of the Kyrgyz Republic	http://www	
Road traffic crash (Total)	RSA-UDB-003	C	count															2,575	2,592	1,352	2,269	2,313						Social Trends Kyrgyz Republic 2015-2019, Table 12.4	National Statistical Committee of the Kyrgyz Republic	http://www	
Road traffic crash (Total)	RSA-UDB-003	C	count												1,319	1,785	2,898	2,575	2,592									Social Trends Kyrgyz Republic 2011-2015, p.135	National Statistical Committee of the Kyrgyz Republic	http://www	
Road traffic crash (Total)	RSA-UDB-003	C	count								1,046	1,039	989	992	1,319													Social Trends Kyrgyz Republic 2007-2011, p.131	National Statistical Committee of the Kyrgyz Republic	http://www	
Road traffic crash (Total)	RSA-UDB-003	C	count							922	1,046	1,039	989	992														Social Trends Kyrgyz Republic 2006-2010, p.135	National Statistical Committee of the Kyrgyz Republic	http://www	

The sheet has entire dataset for the UC – Primary, Secondary sources, multi-year

Example – Almaty Targets

KAZ-1 Almaty									
<<< Table of Contents									
Category	Indicator	Details/ Comments	Table, Page	Document	Original Source	Web Link	Doc. Published Year	Target Horizon Year	Typology (for others)
Targets	Road Safety Targets	Reduction of overall car accident fatalities = 192	P23	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
		Reduction in pedestrian fatalities (annually) = 40	P23	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
	Air Pollution Targets								
	Climate Change Targets	Reduction in GHG emissions = -31% from the base year of 2012	P23	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
		Conversion public and private taxis to CNG = 390 taxi cars (30% of fleet)	P12	Kazakhstan: Support to Energy Efficiency Transformation in Cities		https://openkr	2017	2021-28	
		Purchase additional CNG, clean diesel buses = 1300 Purchase Trolley Bus or electric bus = 500	P49	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
	E-mobility Targets								
	Mode Share Targets	Share of MRT (Metro, BRT, LRT) = 20%	P23	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
		Share of sustainable transport modes (public transport, walking and cycling) = 55%	P23	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
	Activity related Targets								
	Access related Targets	Share of residents living in a radius of 500 meters from a MRT (Metro, BRT, LRT) stop = 60%	P23	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
	Transport economy Targets								
	Active transport Targets	140 km of cycling lanes	P49	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
		500 Bike parks across the city	P49	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
		Cycling rental scheme: 100 stations, 1,500 bicycles	P49	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	
		Number of MRT (Metro, BRT, LRT) corridors = 10	P23	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	PT
		Metro and LRT Routes = 3-4 Frequency = 3-6 mins	T 1-A, P26	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	PT
		BRT Routes = 3-5 Frequency = 2-5 mins	T 1-A, P26	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	PT
Articulated and Solo Bus Routes = 30-40 Frequency = 6-15 mins		T 1-A, P26	City of Almaty Sustainable Transport Strategy		https://alatrans	2013	2023	PT	

Example – Bengaluru Transport Policy

IND-13 Bengaluru							
<<< Table of Contents							
Category	Indicator	Details/ Comments	Document	Original Source	Web Link	Doc. Published Year	Plan period
Policy documents	Active mobility policy/ plan	Secondary report	Peddalling nonmotorised transport in Bengaluru	YLAC	https://theyla	2020	
	Air quality/ pollution policy/ plan		Revised Action plan for Control of Air Pollution in Bengaluru City	KSPCB	https://kspcb	2018	
	Climate change policy/ plan	Secondary report	Make Bengaluru Climate friendly	ESG	https://issuu.c	2021	
	Comprehensive Mobility Plan (CMP)		Comprehensive Mobility Plan for Bengaluru	BMRCL, DULT	https://kanna	2019	Upto 2051
	E-commerce policy/ plan – last mile delivery						
	EV/ E-mobility policy/ plan						
	Integrated Land use and Mobility policy/ plan						
	Logistics policy/ plan						
	City Development/ Master Plan		Revised Revised Master Plan for Bengaluru - 2031 (Draft)	BDA	https://data.o	2017	Upto 2031
	Multi Modal Mobility policy/ plan						
	Public transport policy/ plan						
	Road safety policy/ plan						
	Strategic plan						
	Sustainable low carbon transport policy/ plan						
	Traffic plan/ policy/ study			Comprehensive traffic and transport study (Draft Final)	BMRDA	https://bmrda	2010
Travel demand management policy/ plan							
Parking plan/ policy		3.1 POLICY 1: Preparation of area level parking management plans 3.2 POLICY 2: Charges for parking 3.3 POLICY 3: Streamlining on-street parking 3.4 POLICY 4: Restriction on residential on-street parking 3.5 POLICY 5: Provisioning for off-street parking	Parking Policy 2.0	DULT	https://dult.ka	2020	

ATO Cost Database: Urban Projects



▶ How to access and view ATO Cost Database

▶ Economies Count 1 / 51 ✓

▾ Project Types Count 5 / 28 ✓

Select All ✓ | Reset ✕

- New 1L Road
- New 2L Highway
- New 2L Highway with Climate Proofing
- New 4L Expressway
- New 6L Expressway
- Partial Widening
- Widening
- Widening and Reconstruction

Urban Public Transport ▾

- BRTS
- Commuter Rail
- Light Rail
- Metro
- Monorail

▶ Time Count 61 / 61 ✓

ATO Cost Database

20 ▾


Cost Summary



Unit cost per project type

(mln. USD)

	Average	Min	Max
Asia-Pacific (1)	209.71	209.71	209.71
Urban Public Transport (1)	209.71	209.71	209.71
Metro (1)	209.71	209.71	209.71



Showing 1 projects (Filtered from 1,153 projects)

2018 | ARMENIA

Yerevan Metro Line 1 Northwest Extension

Length (km): 3.0

City: Yerevan

Typology: Urban Public

Transport - Metro

Cost Type: Estimate

Source: [↗](#)

Alternate Source: [↗](#)

Cost in Local

Currency (Mln.):

105,339.67

Cost (Mln. \$):

218.10

Cost (Mln. \$), PPP:

629.12

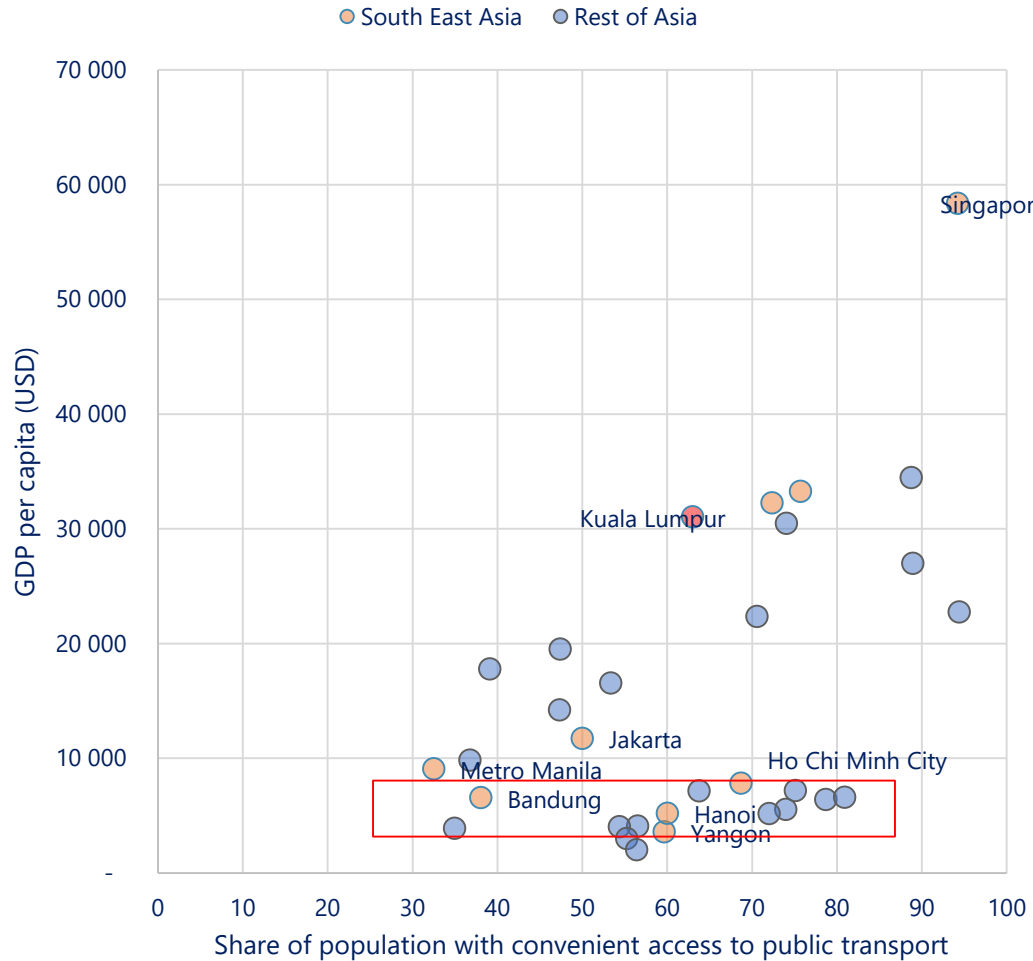
Mln \$/km (PPP):

209.71

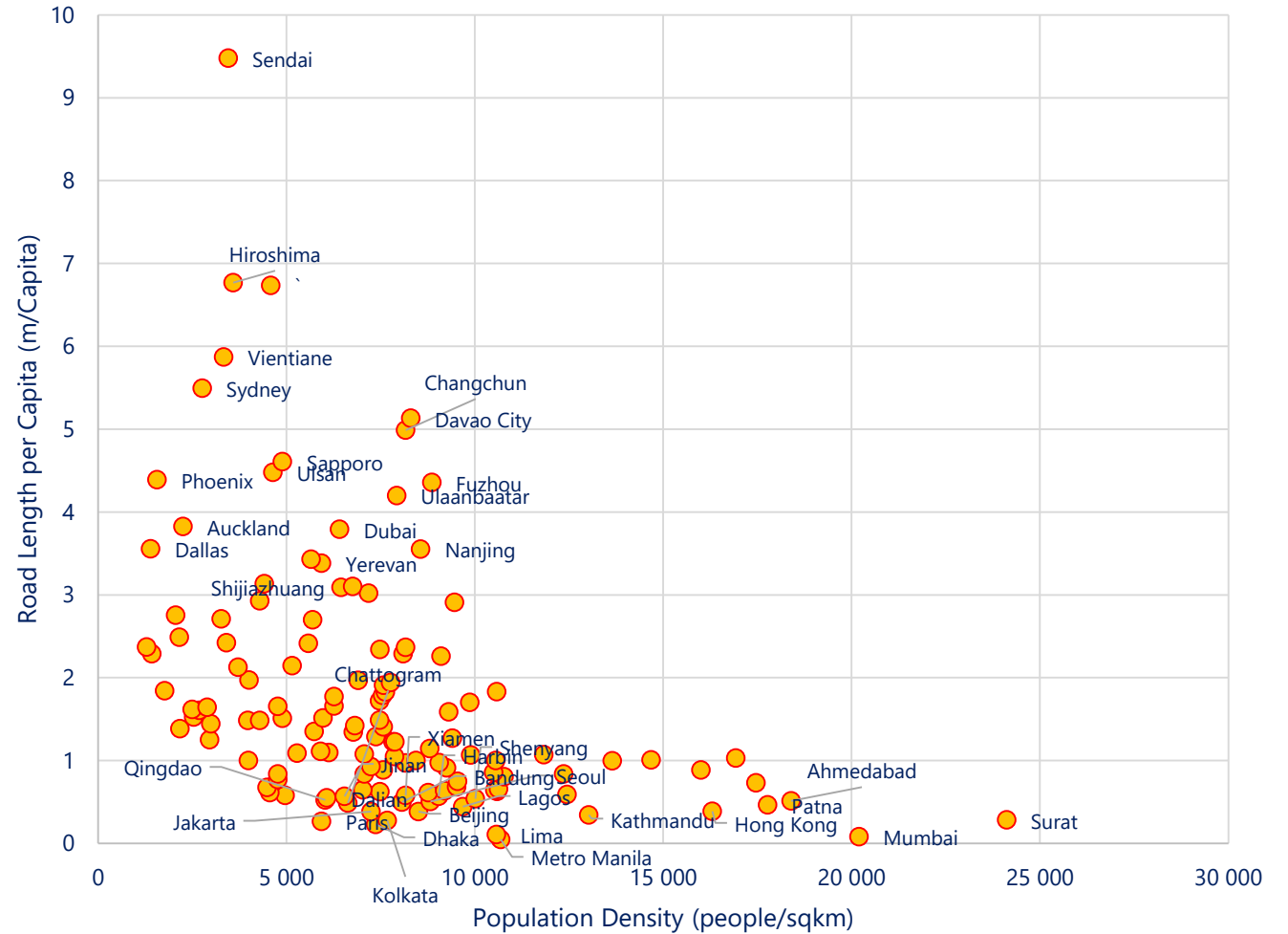


Translating data into "Insights"

Public transport access in Asian cities



Road Length per Capita (m/Capita) & Population Density



Learnings from developing ATO Databases

1. Avoid **Data Bias**
2. There is **no** perfect source
3. **Staircase** approach
4. Passenger > **Freight**
5. "**How To**" - the actual methodology
6. Local **political will** and money
7. Why and what matters – **Couple to policy-making & investments**

"Diagnose, choose, prognose, implement, evaluate, rebalance, market"

**“ATO translates data into insights,
policies and investments”**

<https://asiantransportoutlook.com/>

Reach out to the team:

ATO Team – asiantransportoutlook@gmail.com

Subscribe to:

ATO newsletter – <http://eepurl.com/hSB5KT>

ATO Twitter - @transportATO

ADB Transport twitter - @adbtransport