

# 13<sup>th</sup> Regional Environmentally Sustainable Transport Forum in Asia

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## Enhancing sustainability of urban mobility in Asia-Pacific cities

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# State of public transport in Asia

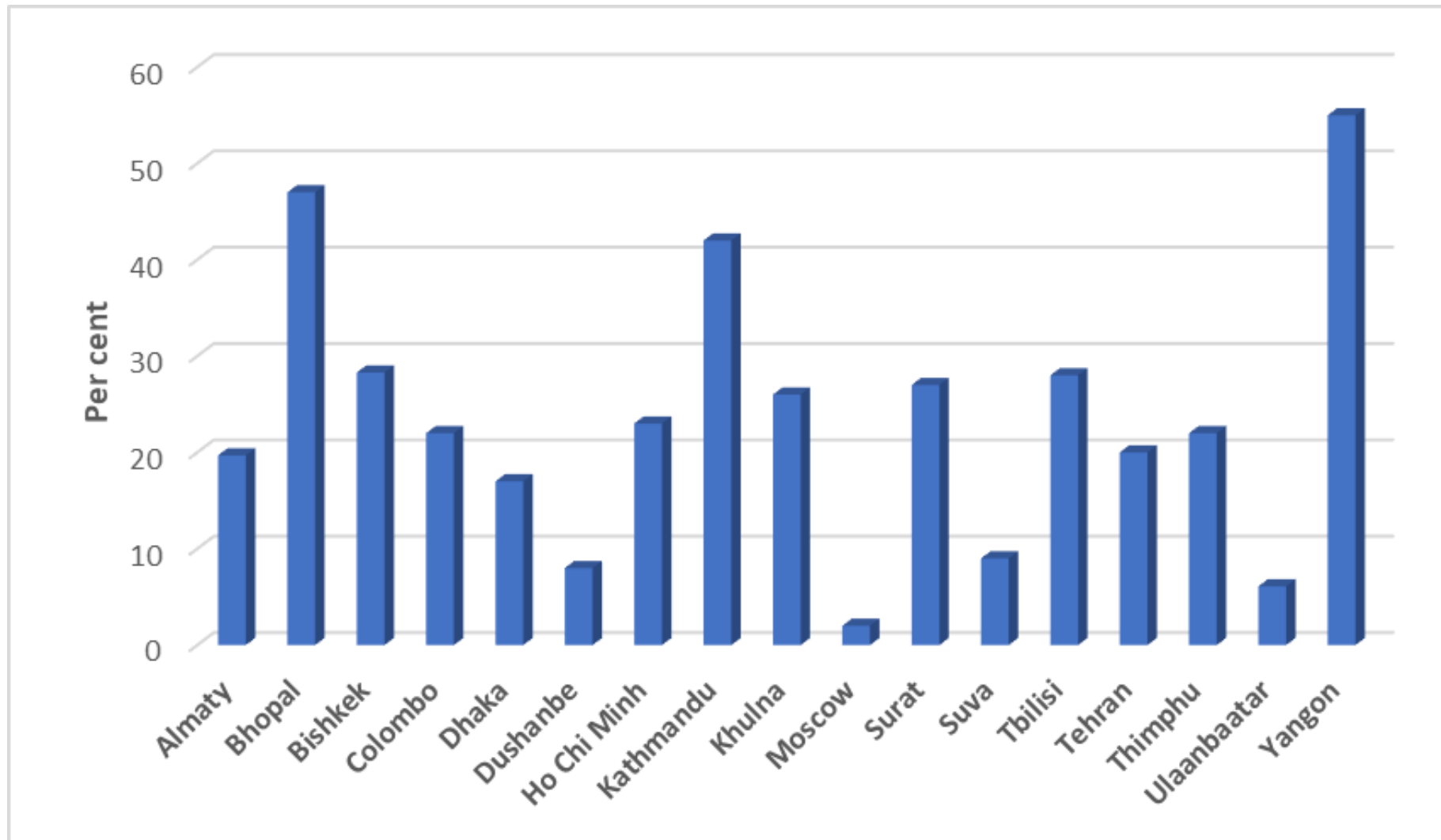
- Many Asian cities operates combination of different forms and modes urban public transport systems (Metro, subway, urban rails, Bus Rapid Transit, Bus, para transit, river ferry and boats).
- Focus on high quality transit
- Need for a public transport network and need to use combination of transport modes
- Integration of land use and public transport planning:
  - Land use and transport planning
  - Physical integration of modes- seamless transfer stations
  - Service integration
  - Fare integration with combined ticketing
- In Asia some cities like Seoul, Singapore, Hong Kong, China, Tokyo- operate a good integrated-public transport system – with smooth transfer among modes.

# Traffic Congestion Asian Cities, 2019

#	World rank	City	Country	Congestion level
1	1	Bengaluru	India	71%
2	2	Manila	Philippines	71%
3	4	Mumbai	India	65% - 0%
4	5	Pune	India	59%
5	8	New Delhi	India	56% ↓ 2%
6	10	Jakarta	Indonesia	53% - 0%
7	11	Bangkok	Thailand	53% - 0%
8	21	Tel Aviv	Israel	46% ↑ 4%
9	32	Tokyo	Japan	42% ↑ 1%
10	34	Chongqing	China	41% ↓ 3%
11	38	Guangzhou	China	40% ↓ 2%



# Mode share of active mobility in Asia-Pacific cities

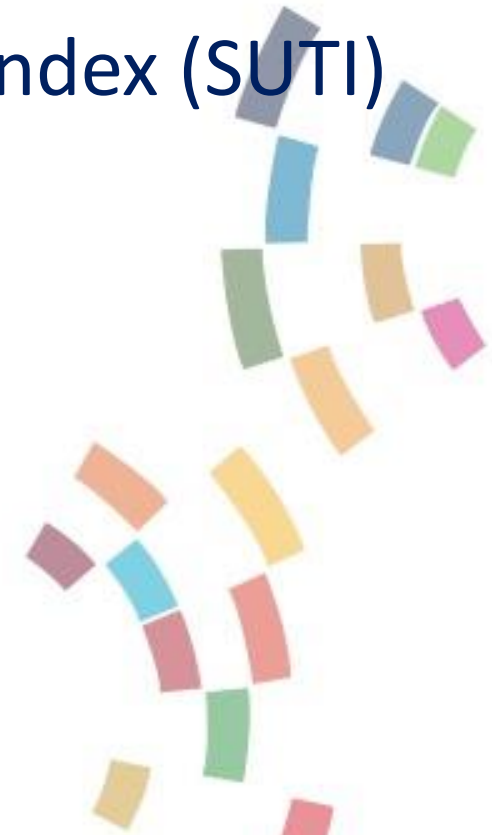


# Sustainability of urban mobility

- SDG Target 12.2 states: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, (it is measured on accessibility)
- The Paris Agreement is focused on the national climate actions and emissions reduction efforts to limit the increase in global average temperatures. transport sector emissions mitigation strategies of Asian countries:
  - Promotion of public bus transport
  - Alternative energy sources
  - Electric mobility
- There is much focus on emissions reduction when we discuss sustainability of mobility- Avoid, Shift and Improve Framework
- There are various approaches to assess sustainability of urban mobility.
- ESCAP Sustainable Urban Transport Index (SUTI) with 10 key indicators to assess the state of urban public transport in a city.

# Measuring sustainability: Sustainable Urban Transport Index (SUTI)

No	Indicators	Measurement units	Weights	Range	
				MIN	MAX
1	Extent to which transport plans cover public transport, intermodal facilities and infrastructure for active modes	0 - 16 scale	0.1	0	16
2	Modal share of active and public transport in commuting	Trips/mode share	0.1	10	90
3	Convenient access to public transport service	% of population	0.1	20	100
4	Public transport quality and reliability	% satisfied	0.1	30	95
5	Traffic fatalities per 100,000 inhabitants	No of fatalities	0.1	10	0
6	Affordability – travel costs as part of income	% of income	0.1	35	3.5
7	Operational costs of the public transport system	Cost recovery ratio	0.1	22	100
8	Investment in public transportation systems	% of total investment	0.1	0	50
9	Air quality (pm10)	µg/m3	0.1	150	10
10	Greenhouse gas emissions from transport	CO2 Eq. Tons	0.1	2.75	0
	<b>SUM</b>		<b>1.00</b>		

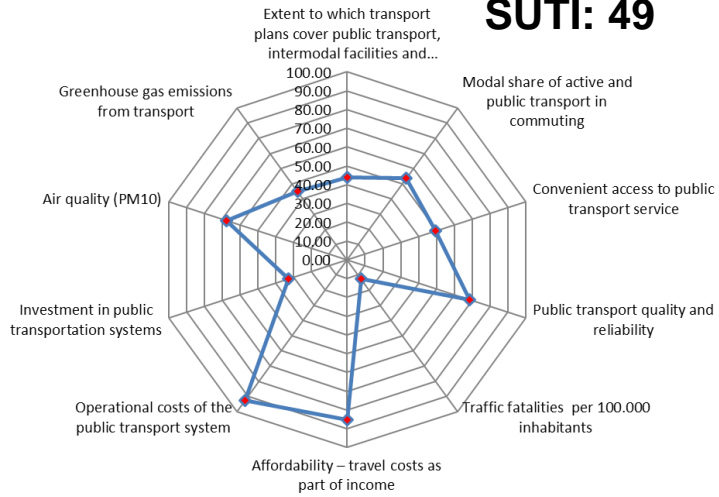


**Three dimensions:**

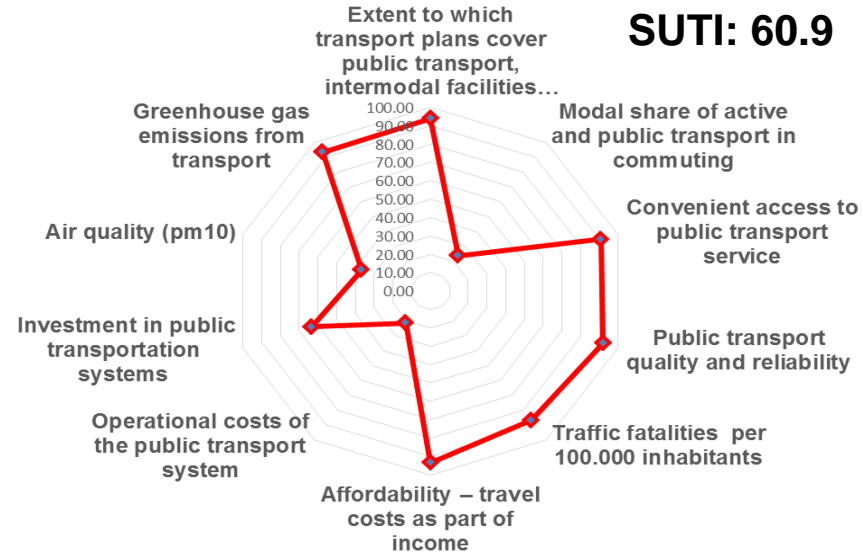
- **Economical**
- **Social**
- **Environmental**



## Yangon SUTI: 49



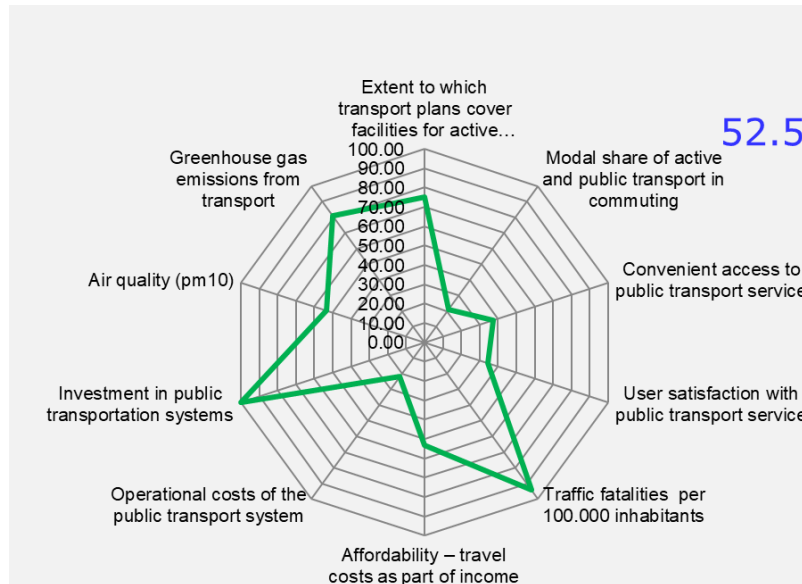
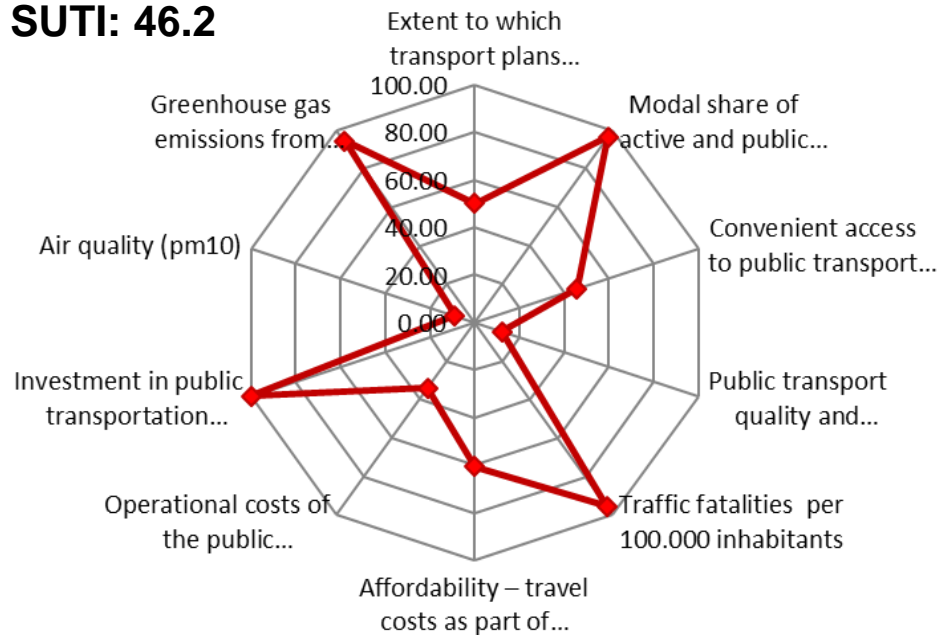
## Surat SUTI: 60.9



### 2020 cities:

- Bangkok
- Yangon
- Palembang
- Pakenbaru

## Dhaka SUTI: 46.2



## Greater Jakarta2

# Assessment of urban mobility in Asian cities

The assessment of urban mobility in Asian cities revealed that:

- Urban transport master plan was in place in most cities- with scope of improvement
  - Much focus on planning- implementation?
  - Mode integration, intermodal transfer stations
  - NMT- Pedestrian walkways, bicycle tracks
- Varying level of accessibility, covering 38 to 98 per cent of the population
- The mode share of public transport and active mobility ranged from 13.5 to 87 per cent
- Public transport fares were affordable
- The farebox recovery ratio was low and operation of public transport was heavily subsidized
- Investment in public transport was low
- Cities have very high levels of particulate matter concentration, PM10
- Fatalities from road crashes ranged from 2 to 15 per 100,000 people.
- The percentage of users satisfied with the quality and reliability of public transport services ranged from 30 to 89 per cent



# Governance of urban mobility

- Study on the process of formulation of mobility policies and plans and their implementation in four Asian cities- Dhaka, Kathmandu, Greater Jakarta and Surat. The key findings are:
- There was much focus on formulation of policies and urban mobility plans;
- The implementation of policies and plans faced many challenges relating to leadership, resources, prioritization, and coordination among various organizations;
- Limited engagement of stakeholders in the whole process of policy formation (participatory planning) to implementation; and
- The users could not feel meaningful improvement of urban mobility services despite implementation of large urban mobility projects.

# Concluding remarks

- Assess the existing state of urban mobility- SUTI
- Evidence based decision to improve key indicators and overall sustainability
- Integrated urban and public transport planning
- Consider low cost mobility options
- Integration of physical, service and fare- electronic payments
- Context of COVID-19: health and wellbeing of commuters & prioritize active mobility
- Social dimension- barrier free accesses, inclusiveness and gender dimension



# THANK YOU

*6<sup>th</sup> Session of the Committee on Transport, 12-13 November 2020*

*Workshop on Urban Mobility and Impacts of COVID-19 on Mobility, 25-26 November 2020*

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