

Inclusive Mobility For An Ageing Society: Asia

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Asian Countries Ranked by Population: Actual in 1999; Estimated for 2050

source: <http://www.un.org/esa/population/pubsarchive/india/20most.htm>

Rank	Country	1999 Population (in 1,000)	Percentage Of world total	Rank	Country	2050 Population (in 1,000)	Percentage of world total
1	China	1,266,838	21.2%	1	India	1,528,853	17.2%
2	India	998,056	16.7%	2	China	1,477,730	16.6%
3	Indonesia	209,255	3.5%	3	Pakistan	345,484	3.9%
4	Pakistan	152,331	2.5%	4	Indonesia	311,857	3.5%
5	Bangladesh	126,947	2.1%	5	Bangladesh	212,495	2.4%

Asia's Three Largest Urbanized Countries

(Total Urban Population Estimates for 2005)

- **China** **535,958,000**
- **India** **312,887,000**
- **Indonesia** **104,048,000**

Three Largest Urbanized Asian Countries

China **12** cities from 14 to 4+ m

India **6** cities from 18 to 5 ½ m

Indonesia **1** City 10m

Percentage of Ageing People in the Top Four Urbanized Asian Countries

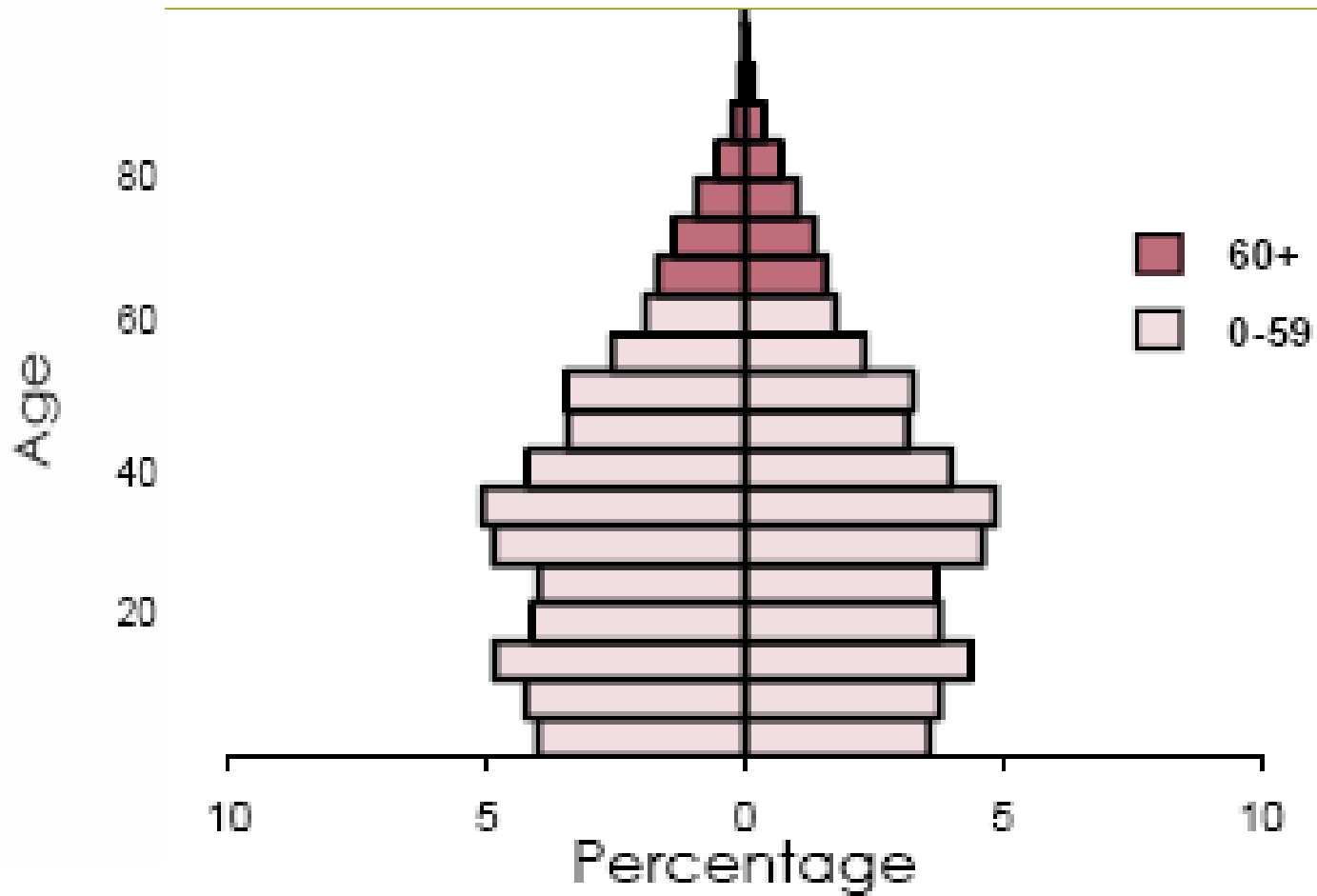
<http://www.un.org/esa/population/publications/worldageing19502050/countriesorareas.htm>

**<http://www.studentsoftheworld.info/infopays/rank/popvil2.html>

Countries	*% 60+ age in 2000	**% Urban 2005
China	10.1	40
India	7.6	29
Indonesia	7.6	47
Japan	23.2	66

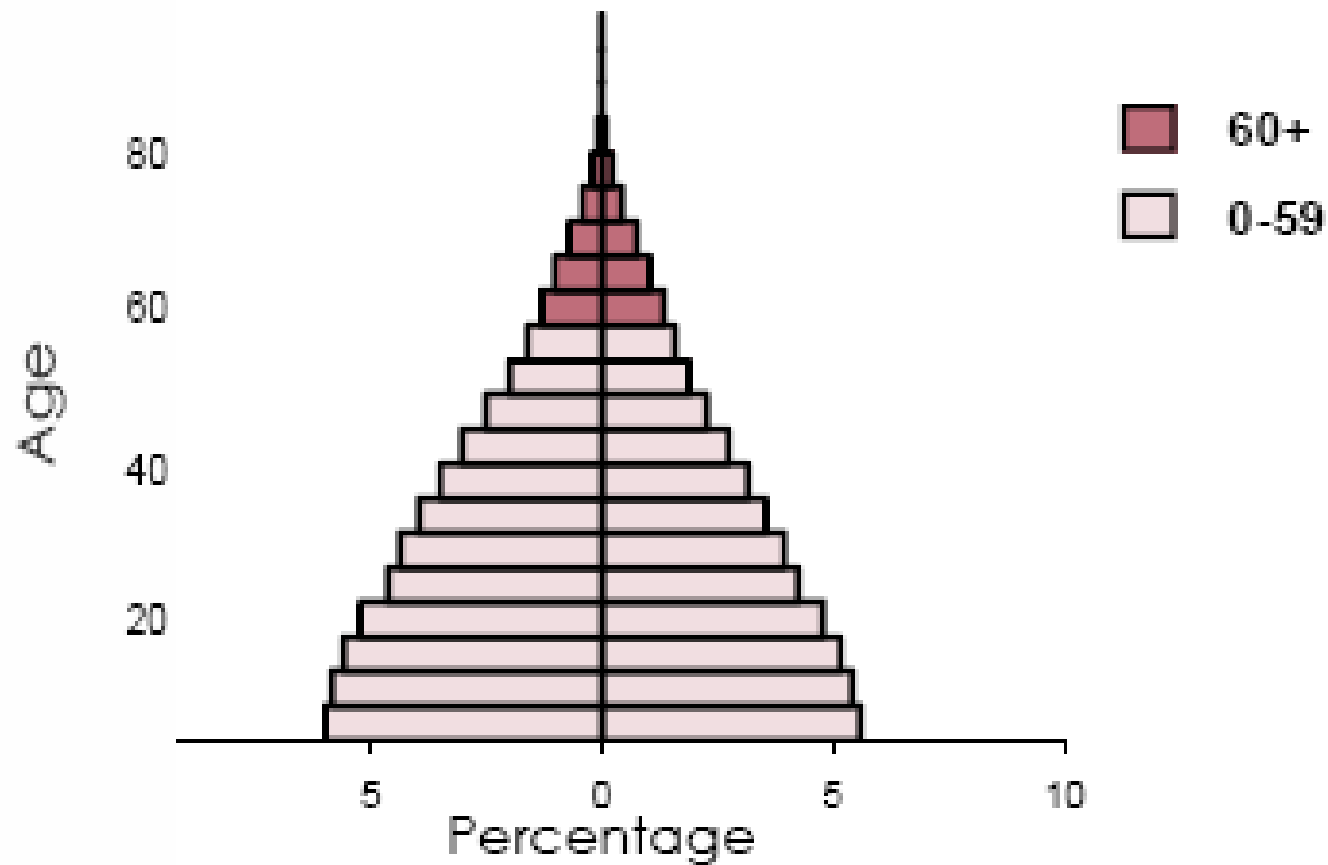
China's Age Pyramid For 2000

<http://www.un.org/esa/population/publications/worldageing19502050/pdf/065china.pdf>



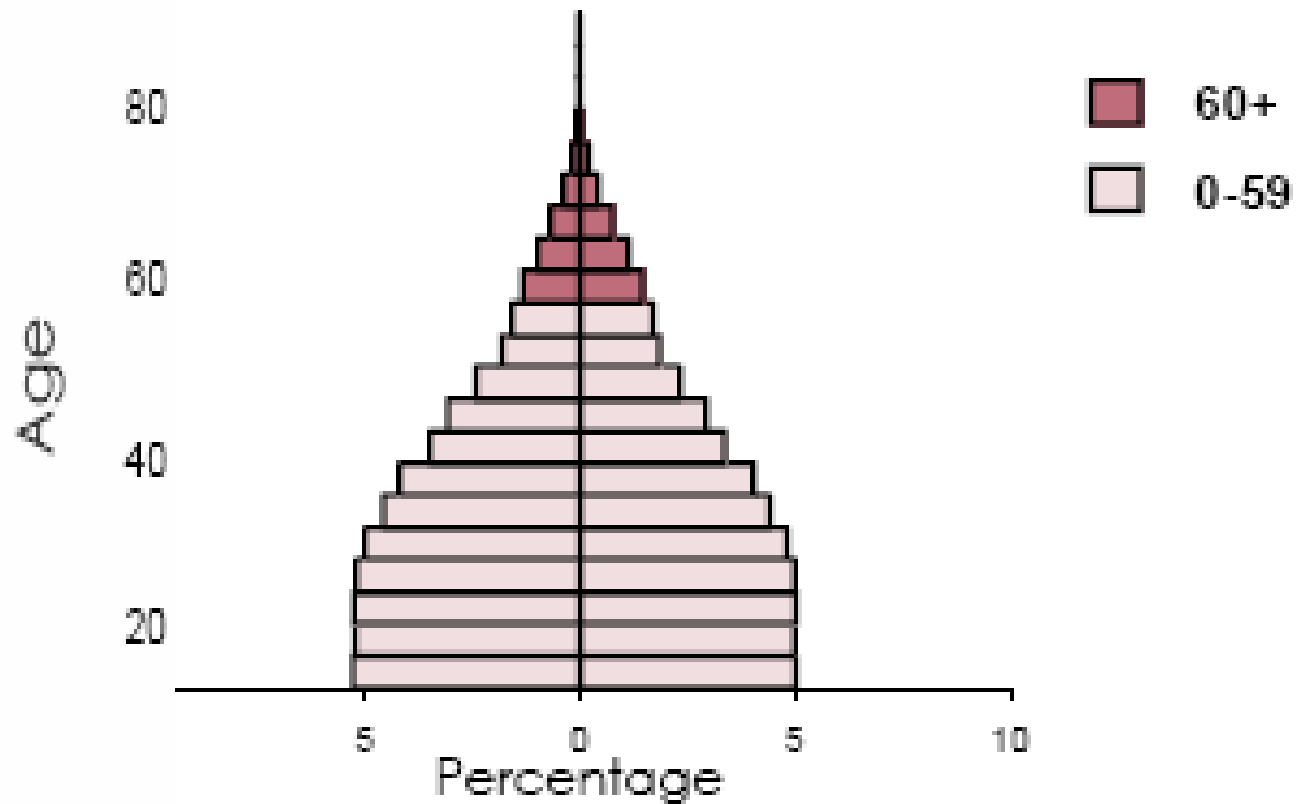
India's Age Pyramid For 2000

<http://www.un.org/esa/population/publications/worldageing19502050/pdf/111india.pdf>



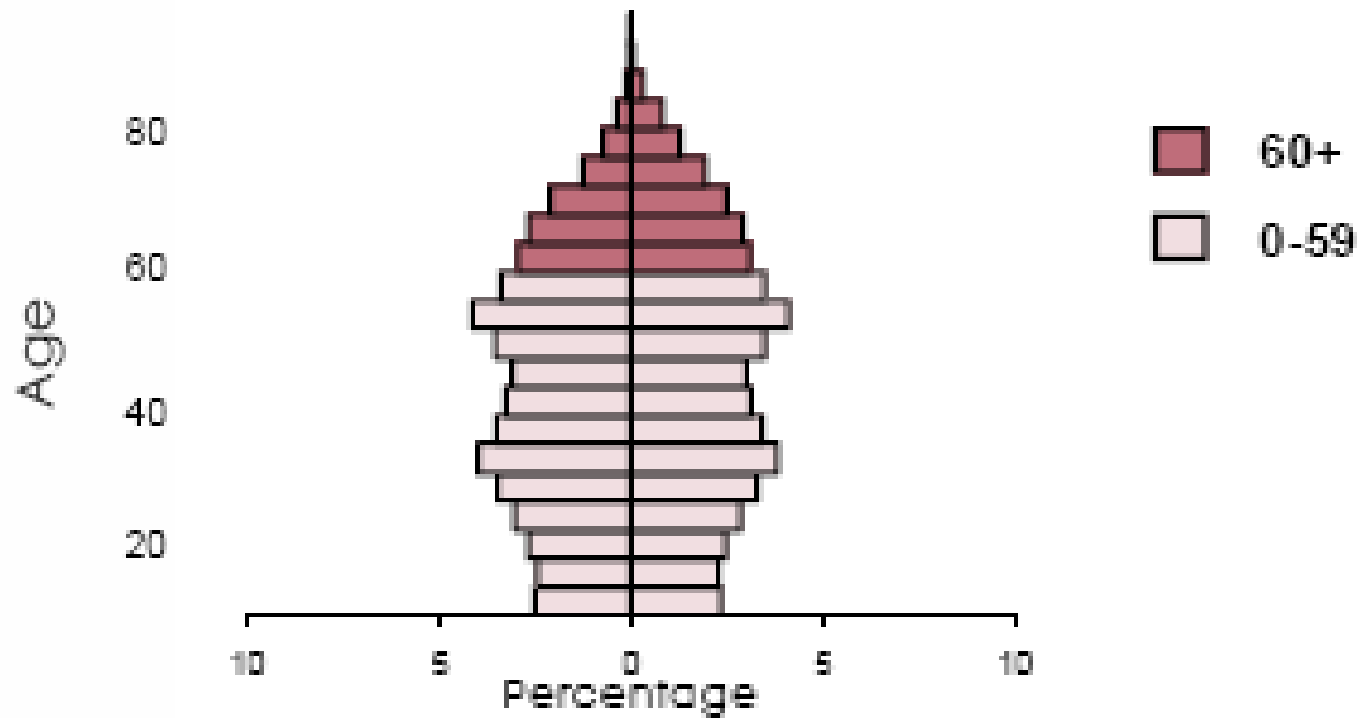
Indonesia's Age Pyramid For 2000

<http://www.un.org/esa/population/publications/worldageing19502050/pdf/112indon.pdf>



Japan's Age Pyramid For 2000

<http://www.un.org/esa/population/publications/worldageing19502050/pdf/119japan.pdf>



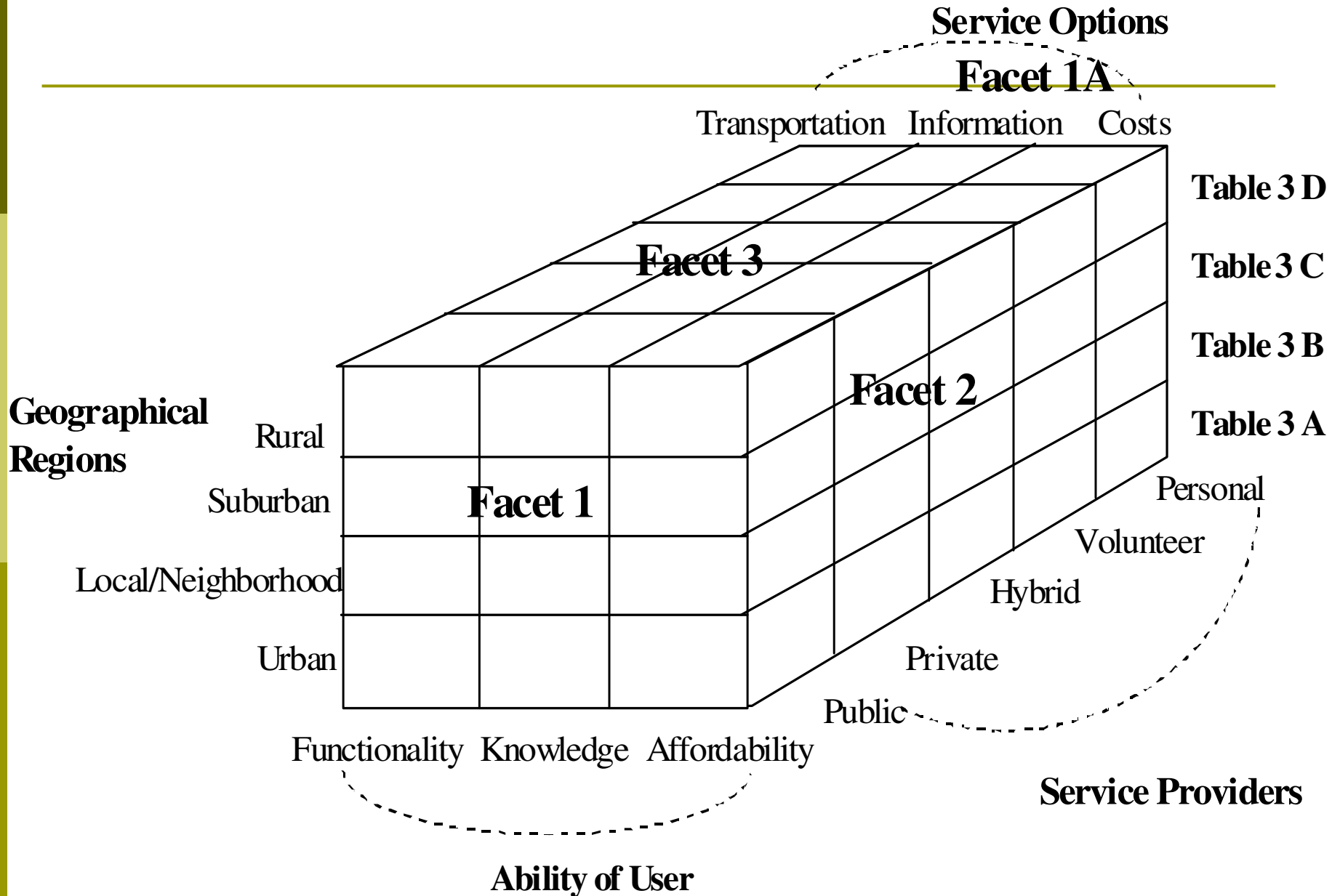
Impact of Ageing in Asia

- ❑ Ageing Pyramid indicates higher levels of dependency of seniors on the younger population (financial, and physical).
- ❑ Increased size of 60+ population means greater increase of disabled population.
- ❑ Greater number of people with mobility and functionality limitations.
- ❑ Greater demand for “accessibility” and accessible transportation.

Impact on Mobility

- **Greater demand for affordable transport for daily activities:** *essential services, recreation etc.*
- **Congestion on all transportation modes:** *roads, rail, buses, airports, air, ferries etc.*
- **Increased demand for accessible transport:** *due to increased longevity of seniors and the disabled (permanent and temporary), and policies enforcing their rights.*

Mobility Options Framework for Low Income, Seniors & Persons with Disabilities



Mobility Choices for Seniors, The Disabled and The Low Income

- Choices are based on geographic location of traveler
- Functionality of the individuals, family's knowledge & information on the accessible & safe service options available
- Cost, affordability, service coverage, and frequency

Asian Cities: Inclusive Public Transportation Policies

1. Affordability: depends on

- **Aged Dependency Ratio (ADR).** This dependency measure identifies the number of elderly (age 60 and older) per 100 productive people in the population (persons age 15 to 59).
- **Youth Dependency Ratio (YDR).** This measure identifies the number of children (age 0 to 15) per 100 productive people in the population (persons age 15 to 59). Although in Asian Countries many children work to supplement family income.
- **Low income** of majority of the households in urban areas (migrant laborers from rural areas seeking jobs).
- **Price of tickets;** most public transport in India, and Indonesia too much for the bulk of the low income urban population.

Inclusive Transportation

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2. Accessible transportation: depends on

- **Available accessible services:** accessible vehicles
- **Enforcement of laws and policies** for the disabled
- **Willingness by publicly funded service providers to** acknowledge the need for accessible services and **implement accessible service.**
- **Ability of User groups to assert their needs**
or
- **The Government policy makers willingness to adopt international standards** for development and tourism goals.

Indonesia: Public Transport

- ❑ Buses
- ❑ Taxi
- ❑ Mini bus ("angkot")
- ❑ Becak (cycle rickshaw)
- ❑ Ojek (motorbike)



Public Transport in India

- ❑ Metro (subway)
- ❑ Commuter rail
- ❑ Buses
- ❑ Mini buses
- ❑ Taxis
- ❑ Shared ride vans
- ❑ Cycle rickshaws



China: Public Transport

- ❑ Subways
- ❑ Buses
- ❑ Three wheelers
- ❑ Taxis
- ❑ Cycle Rickshaws



Inclusive Transport: Available Services and Levels of Accessibility

- ❑ **Cities are large, densely populated, have old parts, and cannot accommodate modern vehicles**.....hence the presence of indigenous modes (rickshaws, becak, ojek)
- ❑ **Buses and commuter rails are old established systems** serving large volume of commuters and **cannot be easily retrofitted** to meet accessibility standards

Available Servicescontinued

Government funding is needed for modern modes:

- **China has invested into** infra structure and has **the maglev, modern subway systems, accessible buses etc.**
- **India has also invested in modern modes such as subways** starting to built the first subway (Metro) in Kolkata (not accessible), followed more recently by Delhi Metro which is accessible
- **Indonesia has less structured public transport system** with private cars providing for those with money, and buses, metro-minis, mikrolets, ojek. etc.

Barriers to Accessible Transport

- ❑ The stakeholders have been shamed into silence until recently
- ❑ Historically “Public Transport” has been operated by private entrepreneurs maximizing profits.
- ❑ Governing management institutions only recently have viewed accessibility as a necessity for a national policy
- ❑ While legislations have been passed, implementation has been slow
- ❑ The national government is not focused especially in a large democracy as India with diverse multi cultural groups competing for the limited central government funds
- ❑ Limited funds have led to prioritizing highly visible projects symbolizing the countries’ development

Government Managed Accessible Systems

- Post WWII independence from colonial powers for India and Indonesia, led these countries to greater publicly financed transport systems
- Total government control in China by the communist party has allowed a “top down” management of the public transport systems allowing for total modernization for major events such as the “2008 Olympics” in Beijing.
- India has moved towards large projects using its existing infra structure institutions such as the “Rail Way Ministry” to build the subways

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Future Directions

- ❑ Adopt “Universal Design” standards to meet the needs of all stakeholders.
- ❑ Recognize transportation as an essential basic service critical for daily living in an urban society
- ❑ Encourage a family of affordable accessible sustainable transportation services, allowing for variations in local conditions and needs

Future Directions.....continued

Impact of external factors:

- Increase in cost of fuel will attract users to public transport
- Pollution and congestion will make drivers reduce car use
- Demand for accessible tourism will increase accessibility to even remote areas
- Globalization will encourage the disabled Asian stakeholder to engage



Thank You