

重新定义公共交通

Re-defining Public Transport

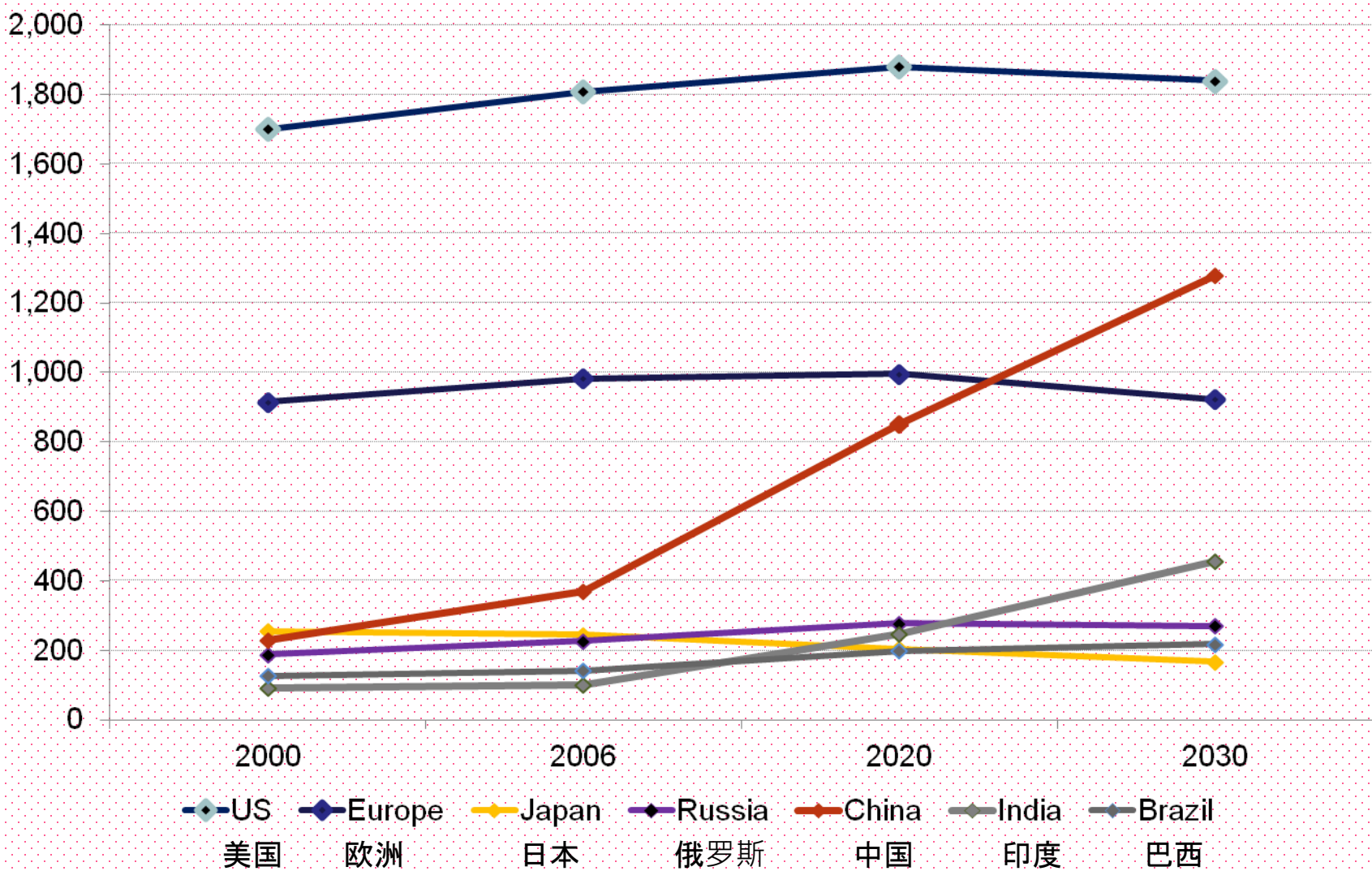
ADB Workshop

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Presentation by:

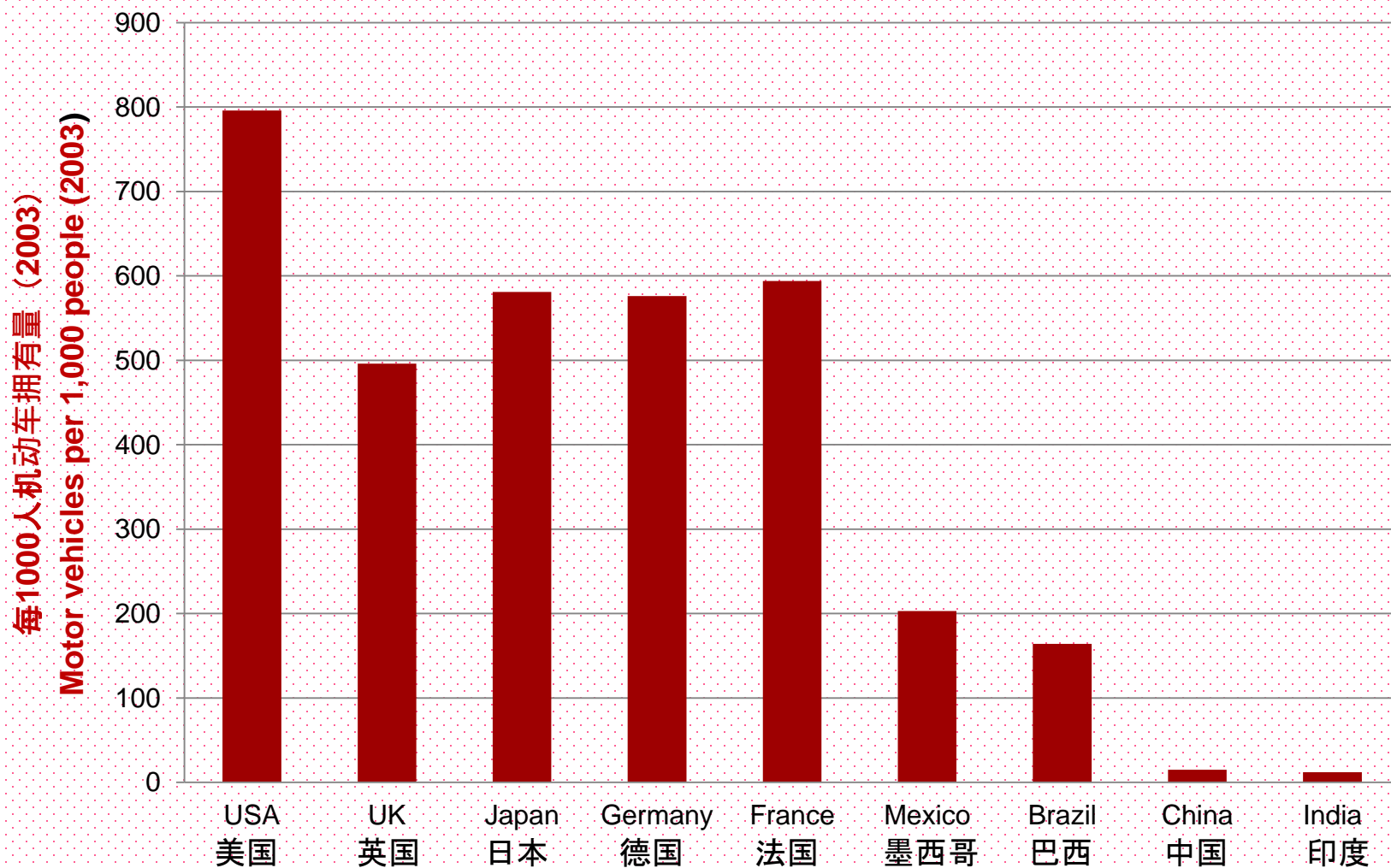
O.P. Agarwal

World Resources Institute



每1000人机动车拥有量

Motor Vehicles per 1,000 People

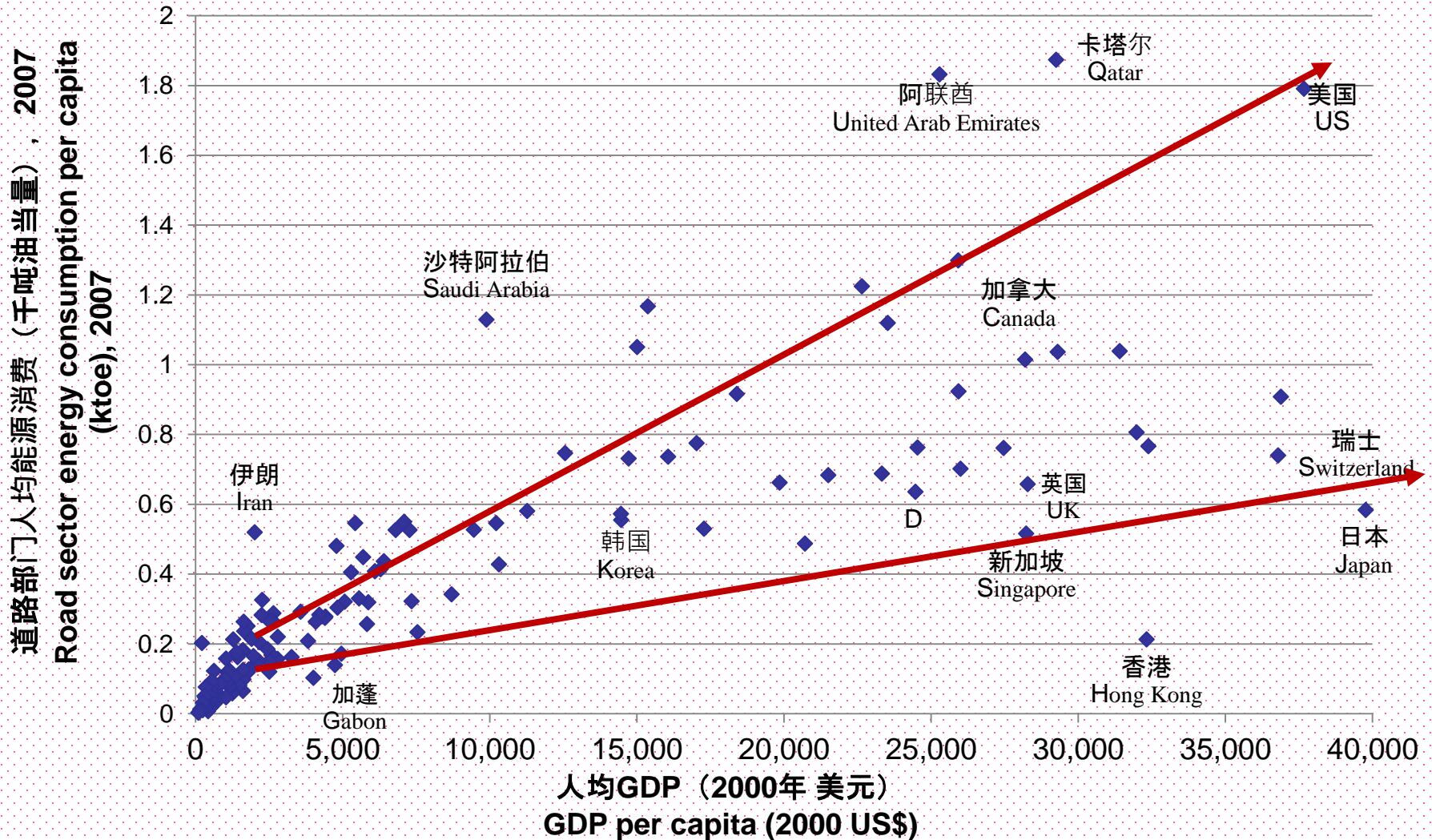


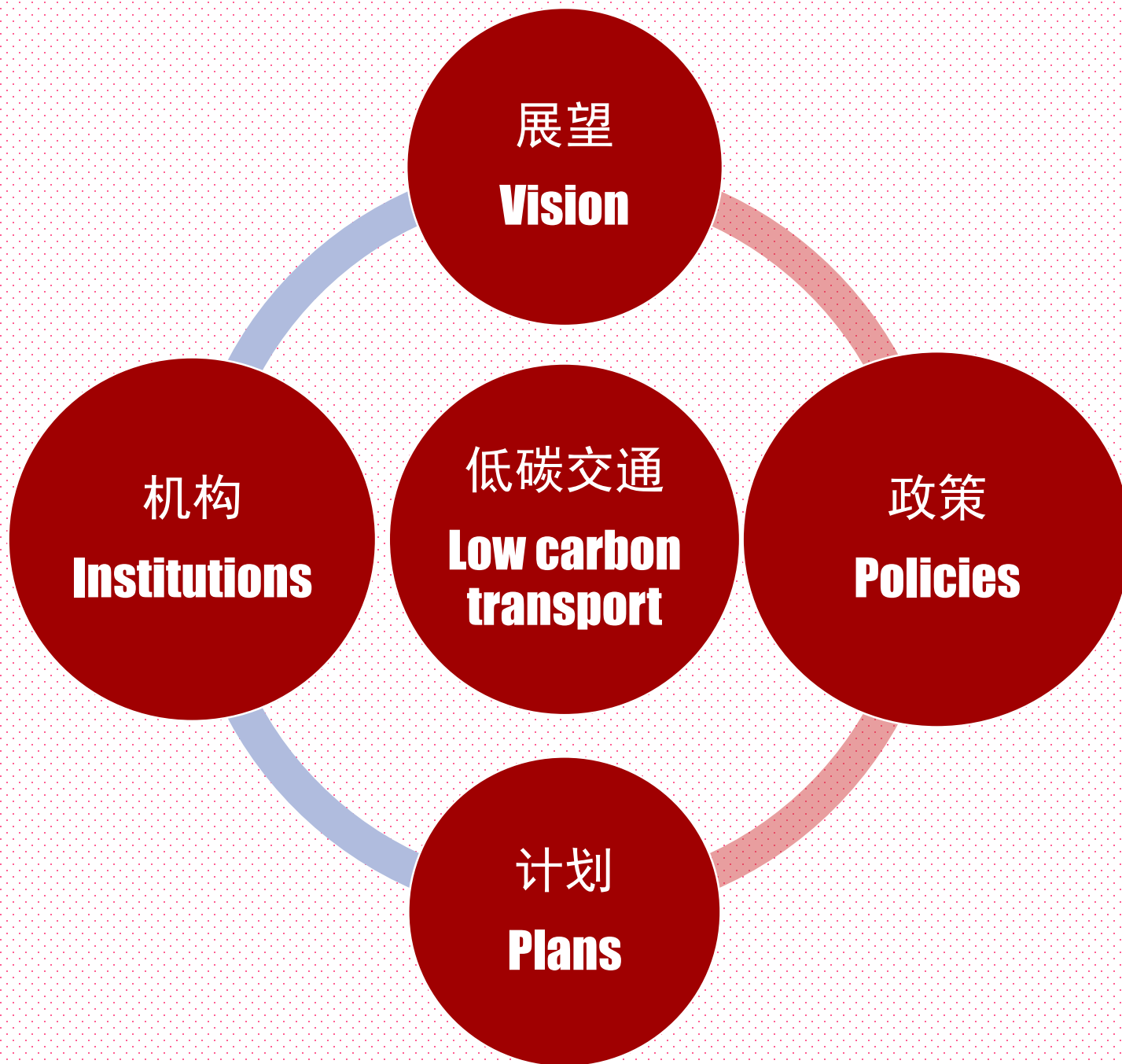
来源：世界银行·世界发展指数

Source: World Bank, World Development Indicators

交通能源消费与收入

Transport Energy Consumption and Income





展望
Vision

我们想要怎样的城市？ What kind of city do we want?



一个蔓延的、有很多公路的城市？

A sprawling city with a lot of highways?

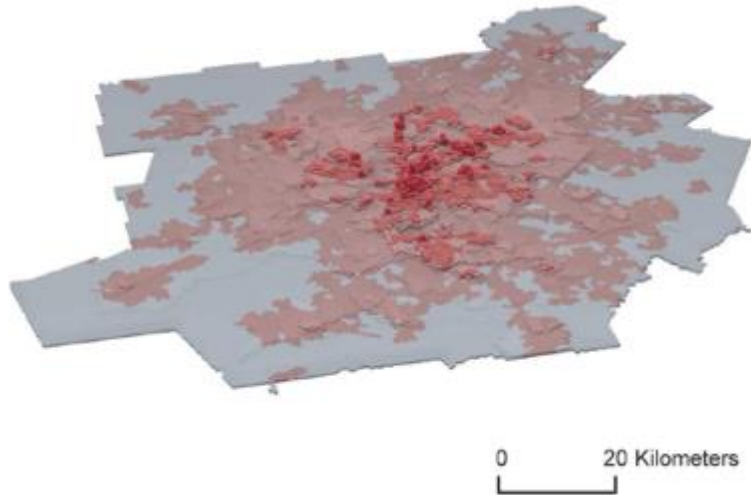
一个紧凑的城市，步行或公共交通可以到达很多地方？

A compact city with places accessible by walking or public transport?



A Tale of Two Cities 双城对比

亚特兰大 ATLANTA



人口 Population: **5.26 million (526万)**

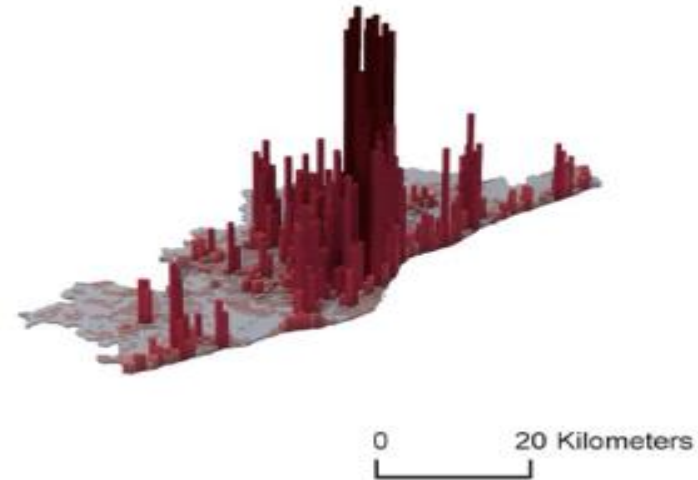
总面积 Total area: **16,605 km²**

市区面积 Urban area: **7692 km²**

交通排放 Transport emissions: **6.9 tonnes CO2 p.c.**

交通死亡数 Traffic fatalities: **564 per year (人每年)**

巴塞罗那 BARCELONA



人口 Population: **5 million (500万)**

总面积 Total area: **3263 km²**

市区面积 Urban area: **648 km²**

交通排放 Transport emissions: **1.2 tonnes CO2 p.c.**

交通死亡数 Traffic fatalities: **31 per year (人每年)**

低碳愿景需要紧凑城市

A low carbon **Vision** will seek a compact city

政策 Policies

步行与自行车是最清洁的交通方式

Walking and cycling are the cleanest forms of transport

但出于两个原因它们的比重正在下降：

But their shares are coming down for two reasons:

1. 随着城市的增长，出行距离变长且无法步行或骑车抵达。

2. 由于缺少良好的分隔基础设施，它们不再安全

1. As cities grow – travel distances are longer and cannot be covered by walking or cycling

2. Due to lack of good segregated infrastructure, they are no longer safe

由于增长的出行距离，人们转向了机动化出行

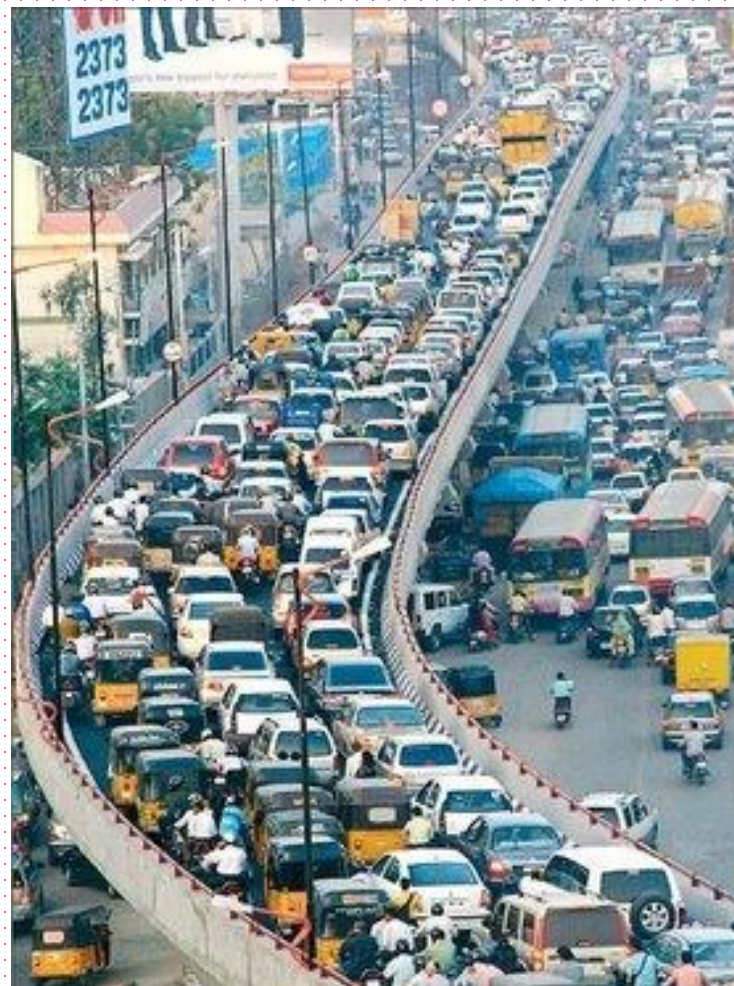
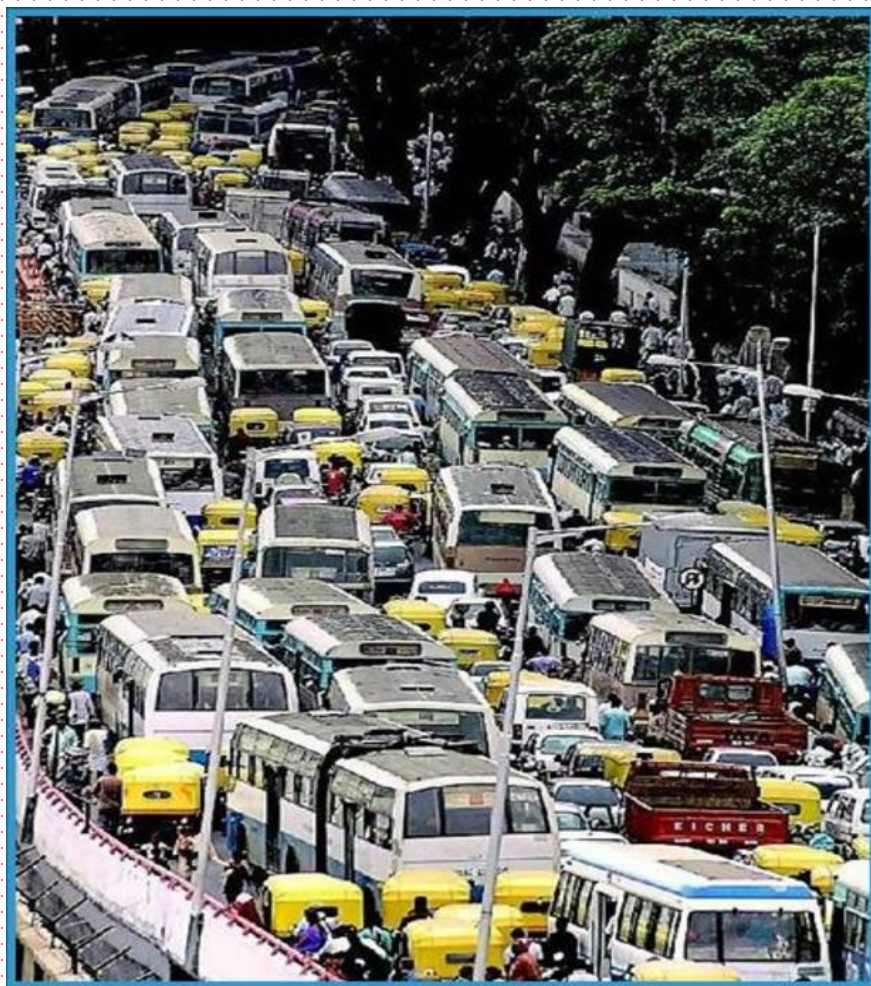
Due to longer travel distances – people have moved to motorized forms of transport

由于不发达的公共交通，人们转向了私人汽车

Due to poor quality of public transport - people have moved to personal motor vehicles



这导致了拥堵
This has led to congestion



道路无止境扩张的后果

Impact of endless road expansion



Courtesy Transfuture.net



我们无法建造不拥堵的道路
WE CAN NOT BUILD OUR WAY
OUT OF CONGESTION

... 而且不仅是拥堵
... and not just congestion

据估计，城市中每年有80万人因空气污染死亡。

Air pollution is estimated to cause around 800,000 deaths in urban areas every year.

WHO

交通温室气体排放占人类产生的全部温室气体的14%。

Transport accounts for around 14% of human-created GHG emissions.

BBC, 2009

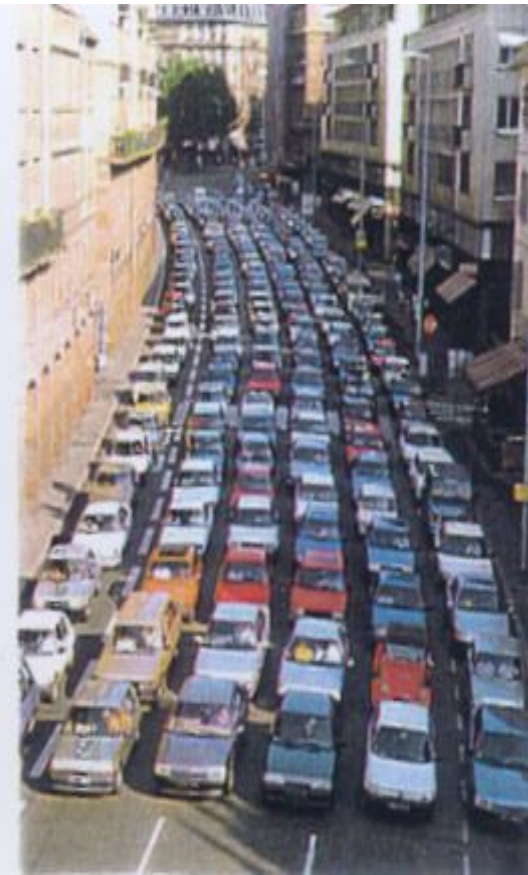
交通事故每年导致120万人死亡。

Traffic accidents cause 1.2 million deaths each year.

WHO, 2010

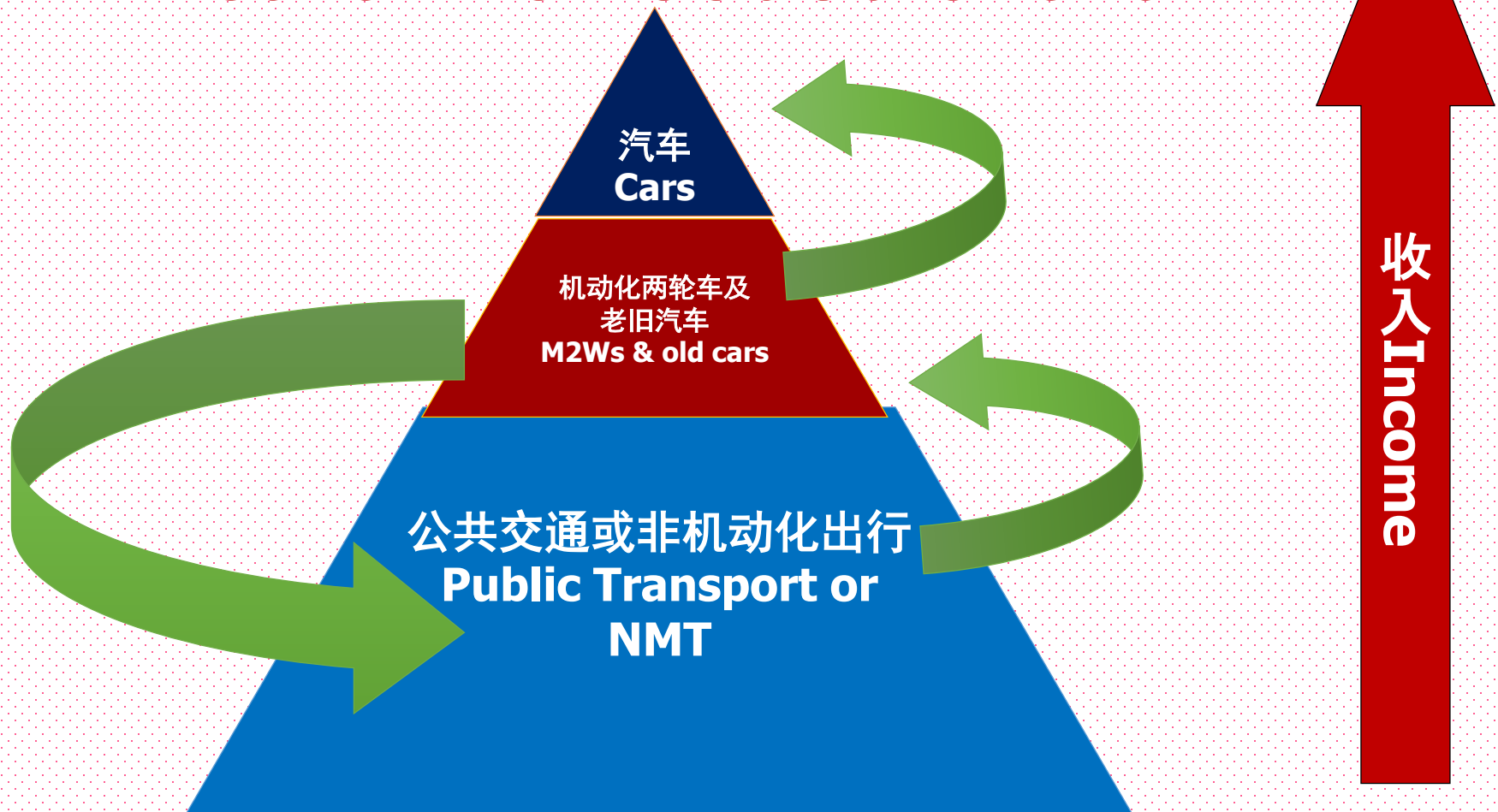
解决办法

The solution



需要采取的措施要点

Thrust of the needed efforts



低碳政策必须

Low carbon policies must

- 推进公共交通与非机动方式
- Promote public transport and non-motorized modes
- 不鼓励个人汽车
- Discourage personal motor vehicles
- 推进电动交通
- Promote electric mobility
- 推动共享交通
- Promote shared mobility

计划 Plans

我们的公共交通是为无力
承担私人汽车的人设计的

Our Public Transport has
been designed for
those who can not
afford a personal motor
vehicle

但是今天我们需要让公共
交通对那些可以承担私人
汽车的人也有吸引力

Yet, today, we need
Public Transport to be
attractive even for
those who can afford
personal motor vehicles

因此，公共交通需要被“重新设计”

**HENCE, PUBLIC TRANSPORT HAS TO BE “RE-
DESIGNED”**



私人汽车使用者的需求

Needs of personal motor vehicle users

- 多样的服务来满足多样的需求

Variety of services to meet different requirements

- 按需提供

Available on demand

- 便捷的点对点服务

Convenience of door to door service

- 可靠

Reliable

- 无需忍受拥挤

Free from the hassles of crowding

- 便捷的乘降与换乘

Ease of boarding, alighting and transfer

- 快速、安全、干净、舒适

Quick, Safe, Clean and Comfortable

如何满足这些需求

How can these needs be met

- 有便捷换乘的整合系统

Integrated system with easy transfers

fixed schedule services

- 干净、有吸引力的车辆

Clean and attractive vehicles

- 提供满足多样化需求的多样化服务

Offer a variety of services to meet different needs

- 充足的承载力

Adequate capacity

- 按需提供便利

Facilitate availability on demand

- 扩大公共交通的定义——不仅仅是固定的路线与时间表

Widening the definition of public transport - go beyond fixed route and

- 创新融资，以平衡质量和可负担性

Innovative financing to balance quality with affordability

利用正在出现的新范例

Leverage new paradigms that are emerging

实现目标的阻碍

What are the barriers to doing this

- 平衡质量和可负担性

Balancing quality with affordability

- 缺乏多模式整合机构

Lack of institutions for multi-modal integration

- 仅仅依靠车票和补贴获取资金

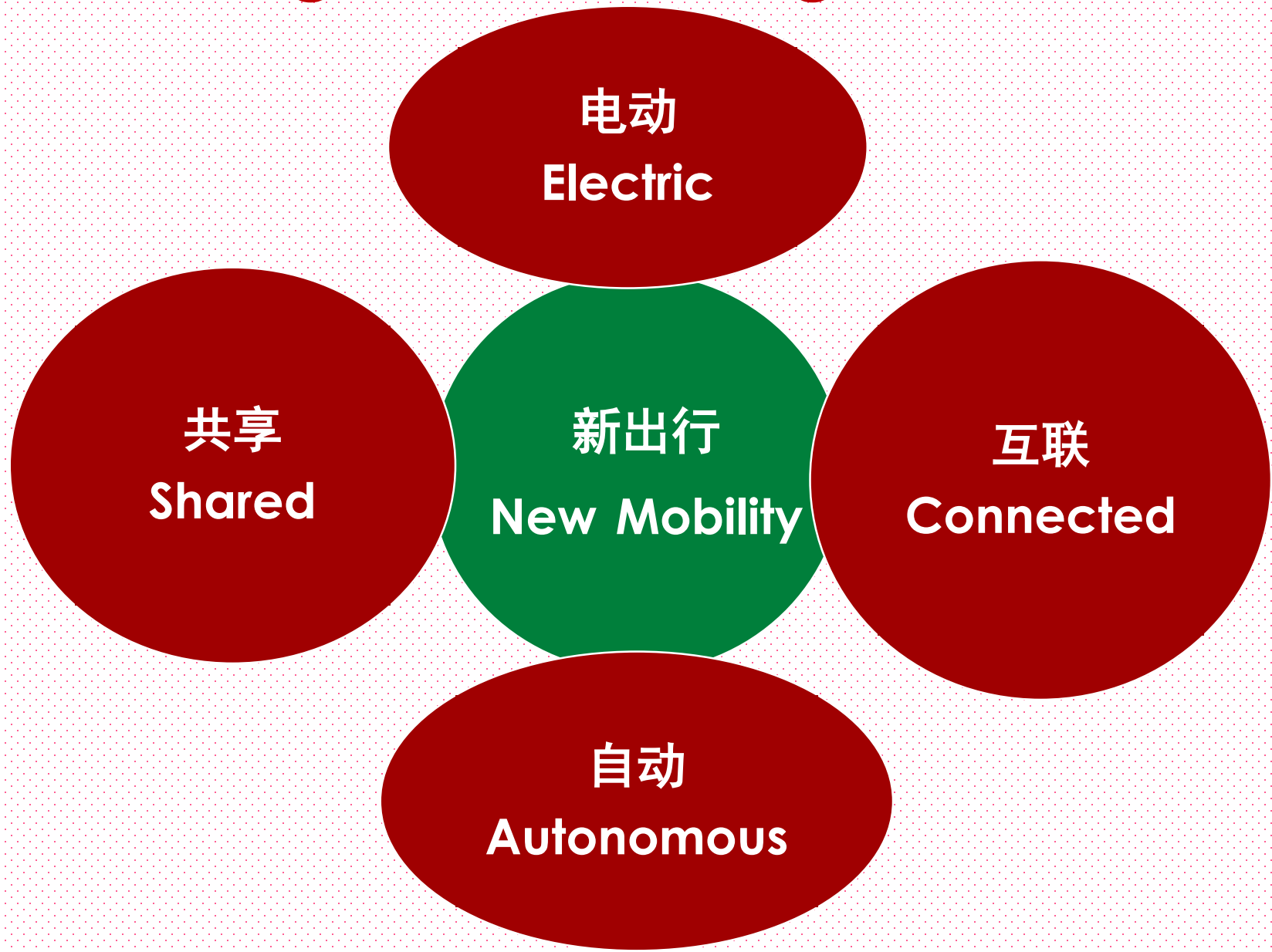
Dependence of financing only from fares and subsidy

- 缺少公开的数据系统/不愿意分享数据

Lack of open data systems / reluctance to share data

四个全球趋势

Convergence of four global trend



低碳计划

Low carbon plans

- 投资多模式和整合的公共交通系统，以便轻松换乘

Invest in multi-modal and well integrated public transport systems that allow easy transfers

- 投资安全洁净的人行道与自行车道
- Invest in safe and clean footpaths and cycle tracks

- 重新定义公共交通，包括基于app的共享出行 - 大型汽车，面包车和小型公共汽车

Redefine public transport to include app based shared mobility – large cars, vans and small buses

- 增加拥有、使用私人汽车的成本

- 高停车费
- 高汽油价格
- 高注册费
- 限制机动车拥有

Increase the cost of personal motor vehicle use and ownership

- High parking fees
- High fuel cost
- High registration fees
- Limit car ownership

- 投资支持电动出行的基础设施

Invest in infrastructure to support electric mobility

机构
Institutions

分散的治理

Fragmented governance

- 城市交通系统有很多组成部分
- 每个部分都被不同的政府机构管理

There are many components to the urban transport system

- 道路 Roads
- 公交车 Bus
- 地铁 Metro
- 出租车 Taxi
- 执法部门 Enforcement
- 信号灯 Street lighting

Each is managed by a different agency

- 且少协调——难以开展合作

Lack of coordination – difficult to get integration

牵头机构

Lead Institution

- 协调城市交通的全部方面

Coordinates all aspects of urban transport

- 承担制定计划、签订合同、进行监管的责任——不一定要负责实施
- Undertakes planning, contracting, and oversight — not necessarily operations

- 制定有效的规则并执行
- Undertakes effective regulation and enforcement

- 有经济实力来执行

Has the financial strength to be effective

- 举例 Examples:
 - 伦敦交通局Transport for London
 - 新加坡交通局Land Transport Authority of Singapore
 - 温哥华交通局TransLink in Vancouver

总结

Summarizing

迈向低碳交通

Way forward for low carbon transport

- 紧凑型城市、混合土地使用规划、短出行距离的愿景

Vision for a compact city with mixed use planning to enable short trip lengths

- 推动非机动车出行与公共交通的清晰政策

Clear policies promoting non-motorized modes and public transport

- 建立牵头机构，监督和协调城市交通

Establish a lead institution to oversee and coordinate transport in the city

- 制定明确的土地利用与交通规划

Develop comprehensive land use and mobility plans

- 投资高质量整合交通系统

Invest in a high quality integrated public transport system

- 重新定义公共交通、提供各种服务、满足不同的需求、吸引个人机动车用户

Redefine public transport to include a variety of services to meet different needs and attract personal motor vehicle users

- 积极推进共享的、电动化的出行方式

Actively promote shared and electric mobility

谢谢 Thank You