

International Forum on Low Carbon City Development: For Central Asia Regional Economic Cooperation  
(CAREC) Program Cities in Beijing, People's Republic of China (PRC), 4–6 December 2018.

**快速发展城市的低碳交通举措：  
首尔与马尼拉经验**

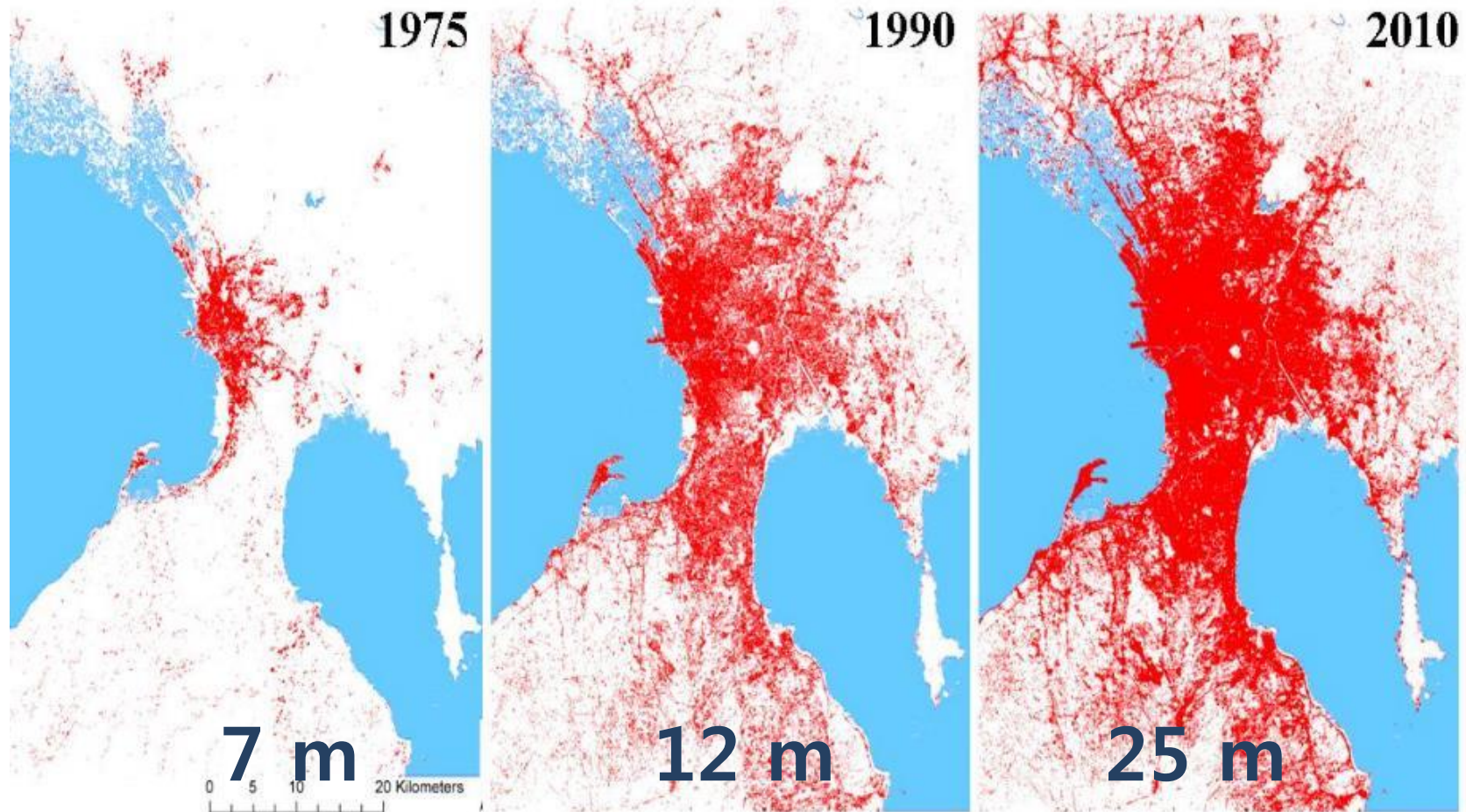
**Low-Carbon Transport Measures  
for Fast Emerging Cities  
Lessons Learned from Seoul & Manila**

Gyeng Chul Kim, Ph.D.  
Former President, Korea Transport Institute  
gckim1004@gmail.com

# 从农村到城市的人口流动浪潮：寻找更好的生活机会

## Rush from rural to URBAN - Hunt for Opportunities

不断扩张的马尼拉（700万到2500万，3.6倍）  
Greater Manila (7 million to 25 million : 3.6x)

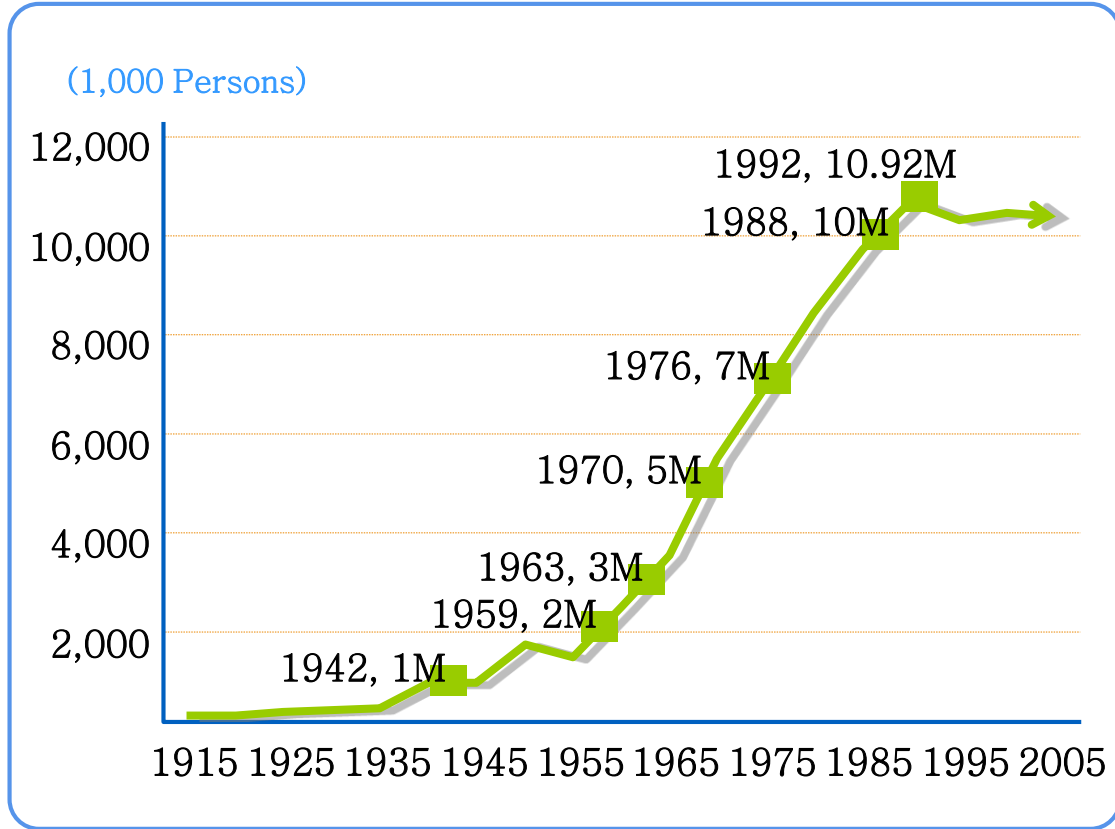


如图展示了菲律宾马尼拉市的城市增长（来源：[earthzine.org](http://earthzine.org)）

Figure shows urban growth of Manila, Philippines. (Ref: [earthzine.org](http://earthzine.org))

# 从农村到城市的人口流动浪潮：寻找更好的生活机会

## Rush from rural to CITIES – Hunt for Opportunities



每五年就有**200万人**来到首尔，  
管理者首先应该做什么？

Every 5 years, **2M people** come to Seoul.  
What to do first?

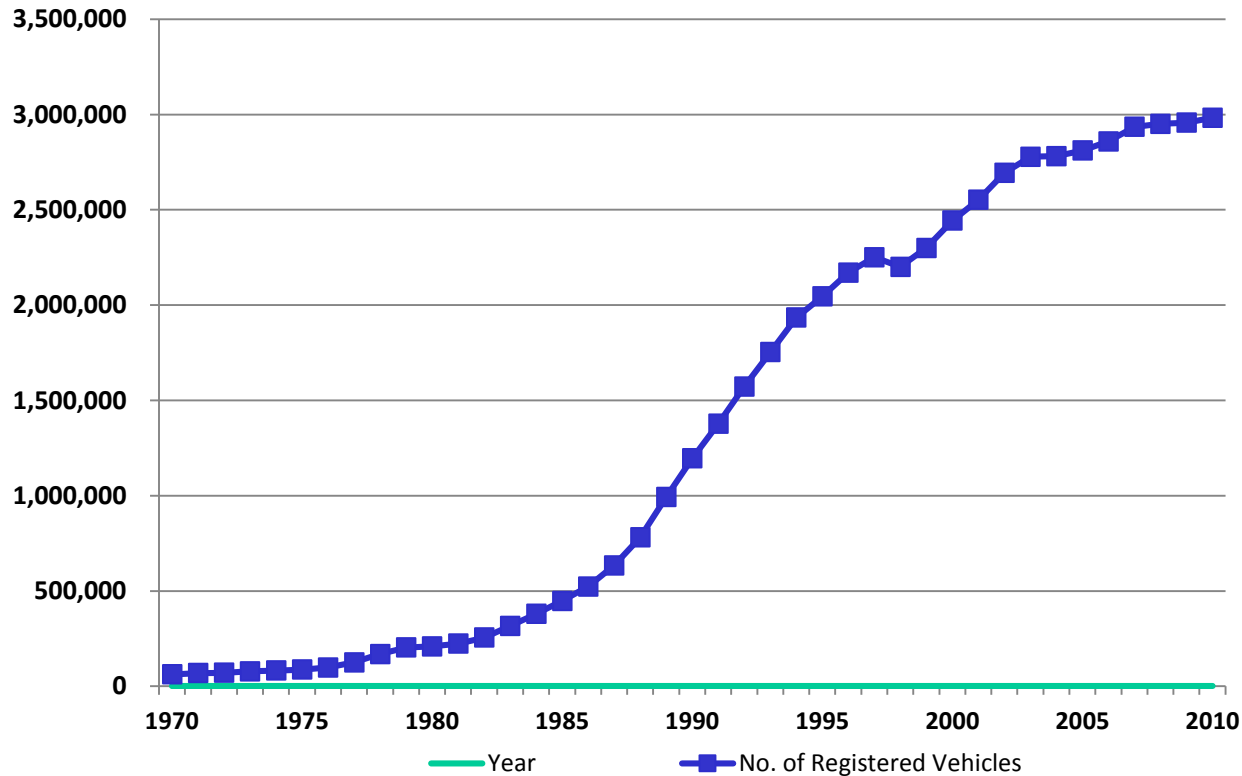


# 车，车，到处都是车！ 机动化的城市（首尔）

## CARS, CARS, CARS! Motorization (Seoul)

- 1970年，6万辆 → 2010年，298万辆
- 1970 : 60,000 cars → 2010 : 2.98 million

首尔市注册机动车数量  
[Registered Vehicles in Seoul]



- 机动车数量增长超过49倍
- 道路建设每年增幅仅有4%
- No. of Vehicles : 49x more
- Road : 4%/year only



→ 新挑战？  
→ Emerging challenges?



# 我们曾经的做法：私家车至上

## What we did: Private CAR - the KING

扩大车道 – 减少人行道，拆除自行车道  
Expansion of Car Lanes – Reduction of Sidewalks, Removal of Bikeways



为了让汽车能够快速行驶，道路拓宽了，**但**人行道减少了。

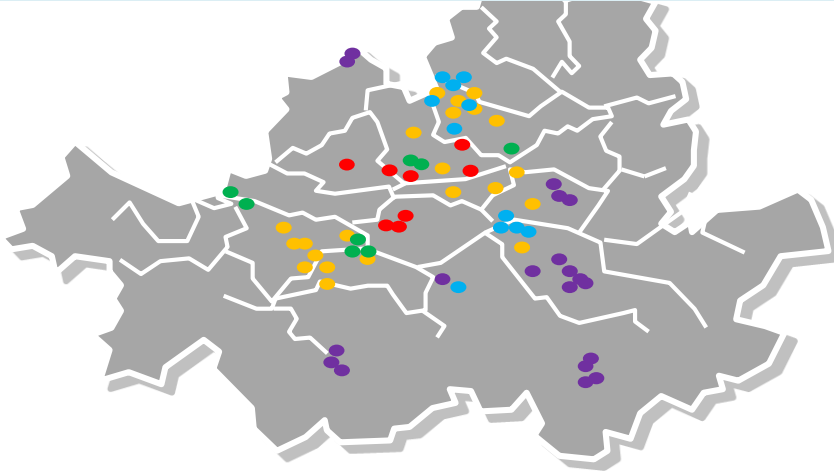
To make cars go faster, roads are widened  
**BUT** sidewalks are reduced.

社会公平呢？要走向一个“高碳社会”？  
Social Justice? Heading to a High-Carbon Society?

# 我们曾经的做法：私家车至上

## What Seoul did : Private CAR - the KING

**建立交桥：1970-2000年覆盖106个重要交叉口**  
**Flyovers Built: 106 (1970-2000) Critical/Major Intersections**



**建造高架桥：1970-2000年，共256座**  
**Overpass Built: 256 (1970-2000)**



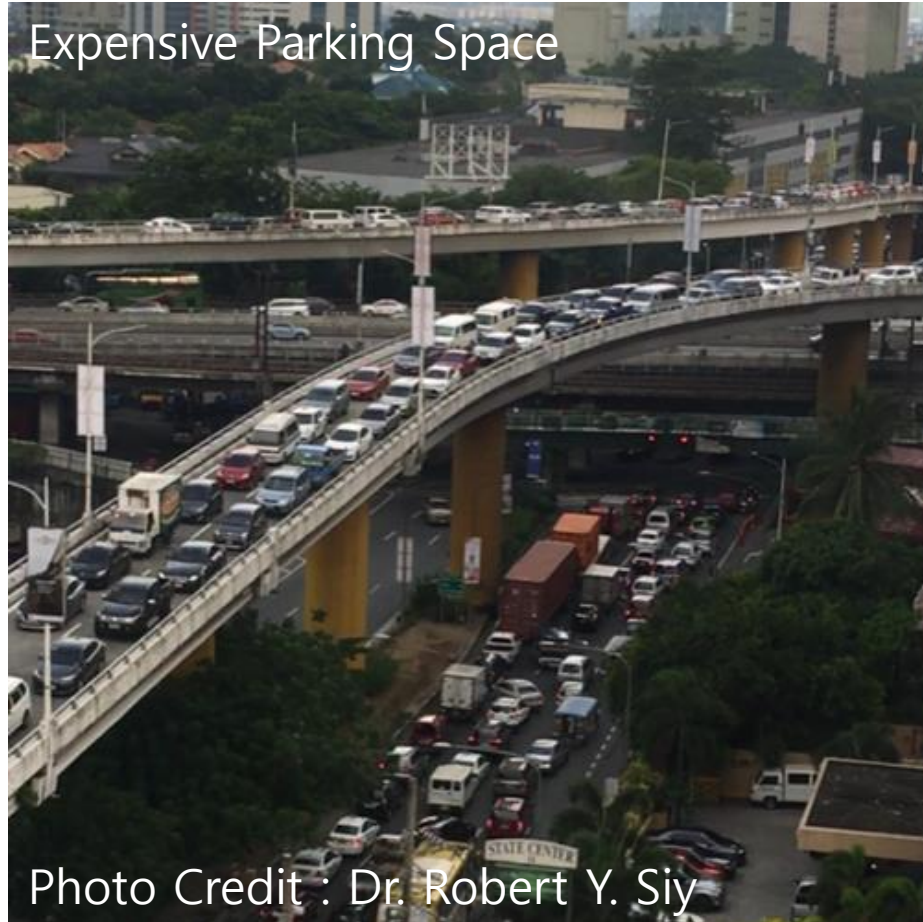


# 充满汽车的“高碳”城市

## CAR-obsessed, High-Carbon Cities

为汽车不断建造的高架桥—吸引更多的汽车上路，造成交通拥挤

More Flyovers for Cars - Attracted More Cars & Heavy Traffic



私家车不加控制的增长是交通繁忙和“高碳城市”的根本原因

Uncontrolled increase in private cars is the root cause of traffic & a High-Carbon City



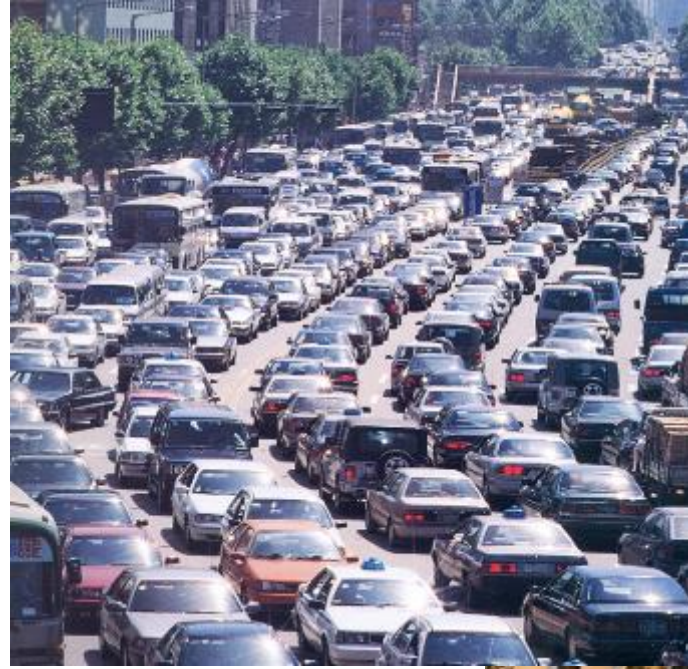
# 城市系统运行崩溃 Urban System Failure

## 80:20

汽车占据了80%的道路空间，但只运送了  
20%的乘客

Cars occupy 80% of road space,  
but move only  
20% of passengers

交通拥堵，系统瘫痪，高成本，  
燃料消耗，哮喘疾病，愤怒情绪  
Jams, Bankruptcy, Costs, Fuel,  
Asthma, Anger



“私家车主使用道路的同时，其他通勤者困在被堵的公交车上”

“Car owners get to use the roads while other commuters get stuck in buses that can't travel fast.”



# 发展低碳交通的措施

## Low-Carbon Transport Measures

首尔的做法：  
改变模式

What Seoul did:  
**PARADIGM SHIFT**

# 包容的交通 Inclusive Mobility



人行道扩建，自行车道网络发展，公共交通优先  
Sidewalk Expansion, Bikeway Network, Public  
Transport Priority



# 促进低碳城市建设

## Promote Low-Carbon City

之前 BEFORE



之后 AFTER





# 推进低碳城市建设

## Promote Low-Carbon City

之前 BEFORE



对妈妈友好的城市?  
对汽车友好的城市?  
**Mom-Friendly City?**  
**Car-Friendly City?**

之后 AFTER



拆除天桥  
Demolition

2/3恢复为有信号标志的人行横道  
2/3 back to at-grade crosswalk with  
signal



# 拆除人行天桥

## Demolition of Pedestrian Overpass

之前 BEFORE



之后 AFTER



推进低碳城市建设  
Promote Low-Carbon City



# 促进低碳城市建设

## Promote Low-Carbon City

之前 BEFORE



之后 AFTER





# **新兴城市的低碳交通措施** **Low-Carbon Transport Measures** **for Emerging Cities**

**首尔和马尼拉的经验**  
**Lessons Learned from Seoul & Manila**

# 促进低碳城市建设

## Promote Low-Carbon City

之前 BEFORE



之后 AFTER



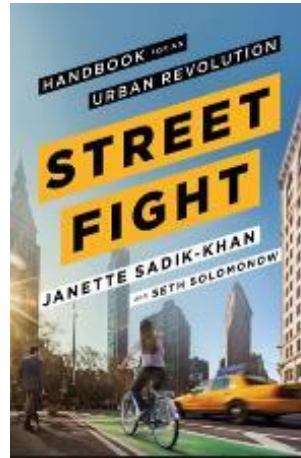
吉普尼现代化计划  
Jeepney Modernization  
Program  
强有力的领导  
Strong Leadership





# 政治领导 - 政治意志

## Political Leadership - Political Will



墨西哥城、圣地亚哥（智利）、布宜诺斯艾利斯（阿根廷），等等  
Mexico City, Santiago (Chile), Buenos Aires (Argentina), etc.

# 政策失败：以私家车为主导的“高碳城市”

## Policy Failure : Private CAR-Oriented, High-Carbon C'ty

拆除自行车道，建造天桥和立交桥？

所有私家车内有多少乘客？

这个数字是否高于6辆公共汽车？

**Remove** Bike lanes, Build **Flyovers** & **Ped Overpass**?

How many passengers in all private cars?

Is the number higher than those in 6 buses'?

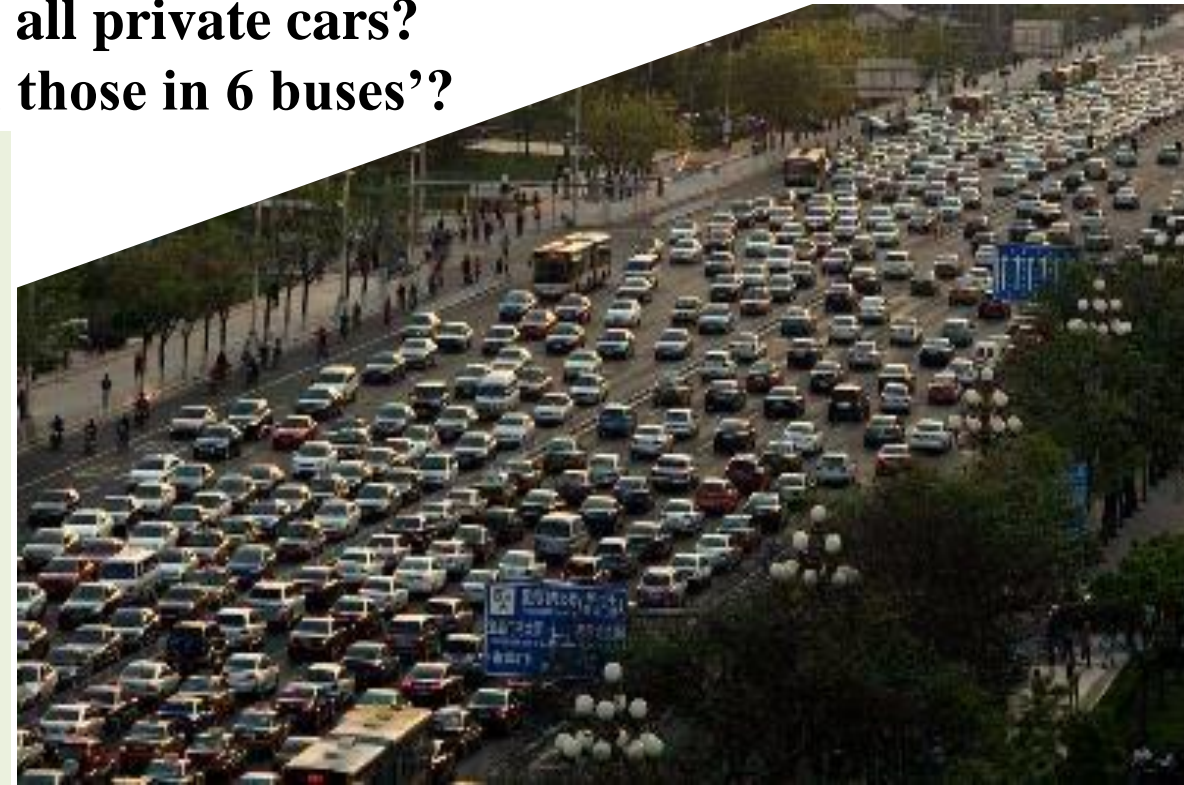
### 问题 Question:

1. 怎样优先发展低碳模式？
2. 行动的阻碍是什么？
3. 谁来领导和负责？（当地政府还是中央政府？）

1. Lower-Carbon Mode (PT&NMT) : TOP **Priority**  
- **How?**

2. Action Barrier: **What?**

3. Champion, Leadership: **Who?**  
( Local, National ?)



Source: Wikipedia, BRT  
Changan\_avenue\_in\_Beijing.jpg