URBAN TRANSPORT FOR SOCIAL JUSTICE AND ECONOMIC DEVELOPMENT
城市交通与社会公正和经济发展的关系

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It is possible to construct a different city, a better city, avoiding errors made in some advanced countries.

人们可以构建一个不同的、更好的城市，避免某些发达国家所犯过的错误。

Bogotá is far from being an exemplary city, but I will share some of our experiences in our 7 million inhabitants city with you, as part of this exercise.

波哥大还远不能堪称典范，但是作为本次话题的一部分，我还是很乐意与大家分享一下我们从这个有着七百万人口的城市中获得的经验。

When Colombia's population was 40% urban, Bogotá had 900.000 inhabitants. Now it is 75% urban and Bogotá has 7 million inhabitants.

Now China is 40% urban. How much bigger will its cities be when China becomes 75% urban?

当哥伦比亚的城市人口占总人口40% 时，波哥大市拥有900,000 居民。现在，哥伦比亚的城市人口比重上升到75%，波哥大的居民人数已达七百万。

现在中国的城市人口比重为 40%，当这一数字上升至75% 时，她的城市会增大多少呢？

Competitiveness and Quality of Life
竞争力和生活质量

How to attract and retain highly qualified people who could get a visa and work anywhere in the world?
It is the most important challenge for economic development of this Century

要知道，高素质的人才可以获得各国的签证并在该处工作，如何才能吸引并留住这样的人才呢？在本世纪，这是经济发展所面临的最重大的挑战。

Competitiveness and Quality of Life
竞争力和生活质量

Quality of Urban Life is a goal in itself. But it is also critical for economic development, as it is necessary for attracting and retaining and Highly Qualified and Creative Individuals.

提高城市的生活质量是城市自身的发展目标，但对于经济的发展也至关重要，因为这是吸引并留住高素质且富有创造力的人才所必需的。

If a city is good for children and old people, by themselves, it will be good for everybody else.

如果一个城市能使老人和孩子自主地生活，那么它也适宜于其他所有的人。

CITY VISION

城市视点

WE CANNOT DESIGN AN URBAN TRANSPORT SYSTEM UNLESS WE KNOW WHAT KIND OF A CITY WE WANT.

在未弄清楚我们到底需要一个什么样的城市之前，我们无法设计城市的交通系统。

VS

与

Do we want a city for people or a city for cars?
There are severe incompatibilities.

我们想建设一个适合人类居住的城市
还是一个汽车城市?

这两个目标是相矛盾的

The friendlier to cars a city is, the less humane it becomes.
一个城市服务于小汽车交通，就越不人性化

Cars kill people, mainly children; cars park on pedestrian spaces; high velocity roads are like fences in a cow pasture: enclose people; in low density neighborhoods for cars shops are far and people do not walk in public spaces.

汽车会伤害人，尤其是孩子；汽车停在人行道上；高速公路就象牛圈一样把人围在里边；汽车较多而居住密度低的社区，商店一般远离人群，没有足够的公共空间供人们行走。

Today Kunming is a marvelous city.
今天的昆明是一个美丽的城市。

The elderly are a part of it all. They can ride a bicycle to the park.
老人是城市的一部分；他们可以骑车去公园休憩。

There are many people in public spaces, walking, talking, laughing, riding bicycles.
这里有很多公共空间，人们可以在这里行走、谈笑和骑自行车。

There are children by themselves in public spaces.

儿童可以在自由地行走在公共空间

It is a very humane environment, very special and rare to someone in the advanced world. Cars have not yet destroyed Kunming's quality of life: But they will.

这是一个非常人性化的环境，在发达国家已经难以见到。小汽车交通还没有破坏昆明人的生活质量，但是有潜在的可能。

Unless something is done, cars will push bicycles off the streets. It is sad, because one can see the faces of bicyclists, but not those of people in cars.

除非我们采取措施，自行车将被小汽车排挤出道路。这是很悲哀的一件事情，因为步行者和骑车人可以面对面地交流，而小汽车隔绝了人们的交流。

Drivers like these in a Kunming traffic jam will want bigger and faster roads. And that would destroy the city's quality of life. Can you imagine the same street under the shadow of an elevated highway?
开车人都希望有更宽的道路，但是这将破坏城市人的生活质量。你能想象这些街道都被高架路的阴影所遮蔽的情景吗？

Once cars destroy the quality of life of the city center, upper income groups and later others go to low density suburbs. The city loses its humane quality.

当车辆破坏了城市中心的生活质量，高收入阶层就会转移到郊区居住。这时，城市也就失去了它人性化的一面。

AN APPROPRIATE MODEL

恰当的模式

Many Chinese cities have advantages that urban experts through the world would envy.

中国的许多城市都有着让全世界的城市问题专家羡慕的优势。

AN APPROPRIATE MODEL

恰当的模式

Chinese cities advantages:
-Land belongs to the State.
-Car ownership is low.
-Many people use bicycles.
-Cities are compact, not spread out.
-More than two thirds of 2050 Chinese cities have yet to be built.

中国城市的优势有：
-土地国有化。
-小汽车拥有率低。
-大量的人都使用自行车。
-城市是紧凑型的，而不是分散型的。
-到 2050 年,中国还有三分之二的城市需要建设。

PRIVATE PROPERTY OF LAND

土地私有制

Public property of land should allow perfect urban planning in the Chinese cities that will be built over the next 50 years: Abundant parks, plazas and sports fields; green corridors and pedestrian streets traversing the city.

对于将在今后 50 年内兴建的中国城市，土地的公有制应该有利于对其进行完美的规划：充裕的公园、广场和运动场地以及穿越城市的绿化带和人行道等。

PUBLIC SPACE

公共活动场所

URBAN LIFE IN THE PAST

以前的城市生活

For 5,000 years all city streets were pedestrian

约 5,000 年来，所有城市的街道都是步行的

URBAN LIFE IN THE PAST

以前的城市生活

URBAN LIFE IN THE PAST

以前的城市生活

URBAN LIFE IN THE PAST

以前的城市生活

When cars appeared we should have started to build a parallel road network: One for cars and the other exclusively pedestrian.

出现小汽车以后，人们不得不开始修建并行的道路网络：一条用于行车，另一条专门用于行走。

PUBLIC SPACE
公共活动场所

Over the last 80 years we have been making cities much more for cars mobility than for children's happiness.

近 80 年来，我们一直都在为了更多地享受汽车带来的便捷而改造城市，而不是为了孩子们的欢乐。

PUBLIC SPACE
公共活动场所

A sort of self imposed cultural imperialism has led us to design cities in which all streets are for motor vehicles.

多少有些自欺欺人的文化帝国主义对我们产生了误导，使我们设计的许多城市中，所有街道都是为机动车准备的。

PUBLIC SPACE
公共活动场所

Traditionally pedestrian networks are located in historic centers. But we in the urbanizing developing world can create magnificent pedestrian road networks hundreds of kilometers in extension where our cities are growing.

传统的欧洲步行网络都位于历史的市中心。但是我们可以在城市周围的成长地区修建精美的步行街。

PUBLIC SPACE
公共活动场所

Many Chinese cities have successful pedestrian streets. However, the idea is not to have a few pedestrian streets, but a network, hundreds of kilometers long. At least one meter of pedestrian street for every 3 or 4 meters of motor vehicle streets .

中国的许多城市都有着修建得很成功的步行街。但是我们的理念是：不仅仅是只拥有少数步行街，而是要有一个规模达数百公里的步行街网络。至少每 3 至 4 条机动车道就得有 1 米的步行街。

PUBLIC SPACE
公共活动场所

In Bogotá we built the Porvenir Promenade, an 18 km pedestrian street, through many neighborhoods that did not even have pavement in their streets. It was a project for the people, not the motor vehicles.

在波哥大，我们修建了 Porvenir Promenade，这是一条 18 公里长的步行街，穿越了许多甚至在道路上连人行道都没有的社区。这是一项以人为本的工程，而不是为了机动车。

EL PORVENIR PROMENADE

EL PORVENIR PROMENADE

PUBLIC SPACE
公共活动场所

Why is public space important in a city with many other problems?

It is during leisure times that income differences are felt more acutely. While higher income citizens have access to large houses, clubs, country houses, vacations, lower income citizens only alternative to television is public pedestrian space.

为什么在一个还有着诸多其他问题的城市中，公共活动场所显得尤为重要？

只有在闲暇时间，收入之间的不平等才会尖锐地显现出来。当高收入的市民能够享受豪宅、俱乐部、乡村别墅、休假时，低收入者只能在家看电视或者去公共活动场所。

PUBLIC SPACE
公共活动场所

Cars on sidewalks or parking bays where there should be sidewalks tend to suggest that citizens with cars are more important than those who don't have them.

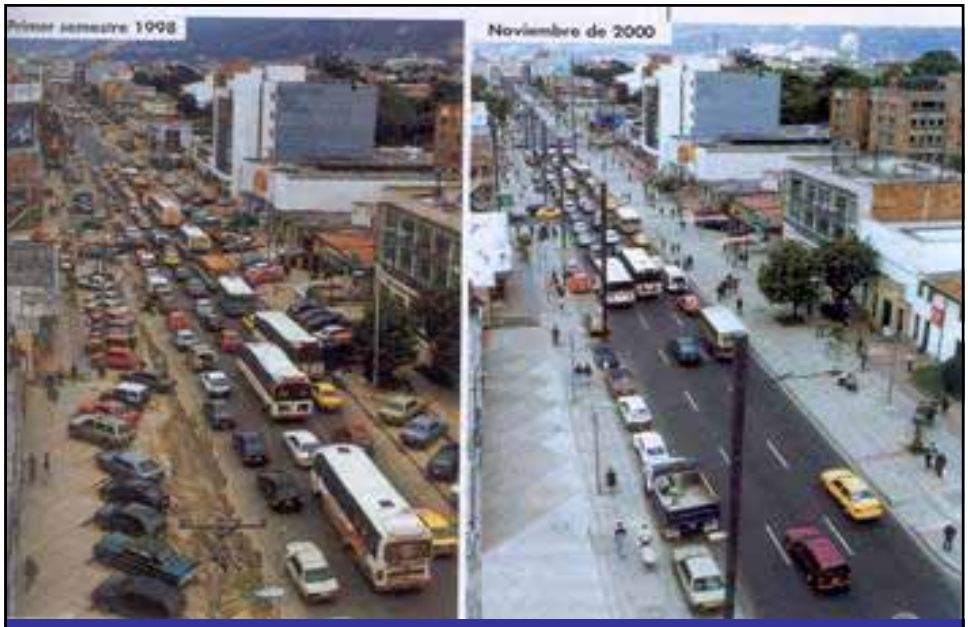
停在人行道或本应是人行道的停车位上的小汽车会使人产生拥有小汽车的人比没有小汽车的人更为重要的感觉。


BARCLAYS

PUBLIC SPACE
公共活动场所

I was almost impeached in the war to get cars off the sidewalks. But afterwards people were very happy and my policies received great support.

我曾经一度因为将小汽车从人行道上赶下来而几乎陷入弹劾之中。但是后来，人们终于对此举措拍手称快，我的政策赢得了巨大的支持。



Before
之前

After
之后

PUBLIC SPACE
公共活动场所

PUBLIC SPACE
公共活动场所

Sidewalks are not simply for getting from one place to another. They are for walking aimlessly, talking, playing, kissing, enjoying the city.

人行道并不仅仅是用来从一个地方走到另一个地方的，它们还应该用于散步、玩耍、交谈甚至接吻，让人们能尽情地“享用”城市。

PUBLIC SPACE
公共活动场所

To say that in a sidewalk there is enough space to carve out parking bays as well as for people to walk by, is equivalent to saying that a city's main plaza or park can be turned into an open air parking lot, just as long as enough space is left between cars for people to walk by.

如果说在人行道上有足够的空间用来划分出停车位和供行人行走的部分，就等于是说可以将市区内主要的公园或广场变为露天停车场，只要各汽车之间有足够的空间供行人行走就行。

PUBLIC SPACE
公共活动场所

When cars are on sidewalks and car traffic in streets deteriorates sidewalk life, people go to shopping malls. But malls are not for all citizens. Some are for the very rich, others for those less rich, and generally the poor feel excluded in all of them.

当小汽车占用了人行道，小汽车交通破坏了行人的环境，人们只能在一些商业中心活动；而商业中心只是为比较富裕的人服务的，低收入者会感觉被社会摈弃。

PUBLIC SPACE
公共活动场所

People like to be and to meet in public spaces. When shopping malls replace public space as a meeting place for citizens, it is an symptom that a city is ill

人们喜欢在公共活动场所停留以及聚会。如果购物中心取代了作为市民聚会地点的公共活动场所，这就意味着这个城市有问题

PUBLIC SPACE

PUBLIC SPACE

PUBLIC SPACE

It is during leisure times that income differences are felt more acutely.
休闲活动更能表现人们的收入差距。

PUBLIC SPACE

The quantity and quality of a pedestrian public space is one mark of a civilized city.
公共空间的数量和质量是一个城市文明的标志

PUBLIC SPACE
公共活动场所

What lends character to a city is its public space; what is memorable about a city is its public space. When someone returns from Paris he (or she) generally do not tell us about French highways.

为城市打下烙印并且使人难以忘怀的是它的公共活动场所，没有人从巴黎回来后会大谈特谈法国的高速公路。

PUBLIC SPACE

PUBLIC SPACE
公共活动场所

In our daily life we may be separated by income and hierarchies, but in public space we meet as equals.

在日常生活中，人们可能由于收入和等级差异被隔离，但公共空间内我们是平等的。

TOURISM IS PEDESTRIAN

旅游即步行

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旅游即步行

TOURISM IS PEDESTRIAN
旅游即步行

If a city wants to attract tourists, it has to have great quality public pedestrian spaces.

一个城市如果要吸引观光者，就必须有优良的公共步行活动场所。

TRANSPORT

交通

TO TALK ABOUT TRANSPORT IS TO TALK ABOUT URBAN STRUCTURE.

说到交通，就必须说到城市结构。

TRANSPORT
交通

Shanghai
上海

Different from other challenges such as health or education, urban transport does not improve with economic development.

交通问题与其它挑战（例如健康和教育问题）不同，它不会随着经济的发展而改善。

TRANSPORT
交通

A compact, more pedestrian and bicycle friendly city, whose population uses public transport, can have a better quality of life than a spread-out city even with lower income

如果一个紧凑且更适于步行和骑自行车的城市的人口都使用公共交通，即使该城市的收入水平较低，它的生活质量也会 比一个扩散型的城市要好

TRANSPORT

交通

More than whether trains, tramways, buses, monorails are chosen, public transport success depends on high population density. High density makes possible low cost, high frequency public transport.

公共交通的成功程度更多地取决于其人口密度，而不是在方式上选择火车、有轨电车、公共汽车还是单轨铁路。高密度可以带来低成本、高使用率的公交系统。

TRANSPORT

交通

American urban experts regret their low density because:

- It makes it impossible to provide low-cost high-frequency public transport (thus enormous public and private expenditures on transport)
- Mobility problems for vulnerable members of society such as children, the elderly, the poor.
- Inefficient use of land with agricultural, recreational and environmental values.
- Unfriendly pedestrian environments, with long distances to points of interest such as stores.
- Lack of people in public spaces.

美国城市问题专家对他们的低人口密度表示遗憾，因为：

- 无法实现低成本、高使用率的公共交通。
- 导致老弱病残和贫穷者等社会弱势群体出行不便。
- 土地的农业、娱乐和环境价值得不到充分利用。
- 步行环境不佳，到达目的地（例如商店）的距离过远。
- 公共活动场所人气不足。

TRANSPORT

交通

Having a compact urban development saves billions on road infrastructure, fuel, motor vehicle depreciation, parking spaces .

实行紧凑型城市开发可以节省数以十亿计的道路基础设施、燃油、机动车磨损以及停车场所费用。

TRANSPORT

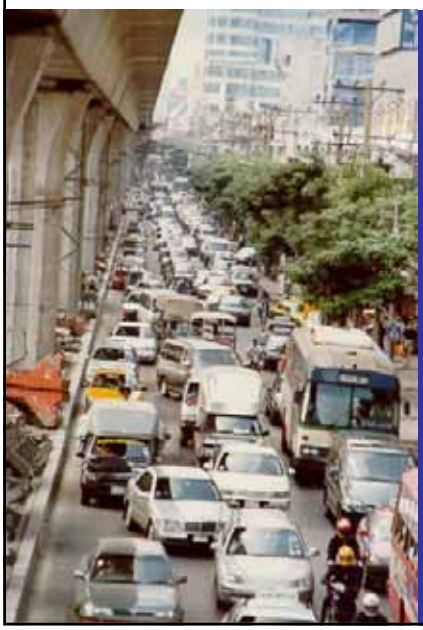
交通

Suburbanization is the main threat to Chinese cities: and it is a direct result of car use and road building.

低密度城市扩展是中国城市的一个主要威胁：直接导致小汽车交通增长。

TRANSPORT

交通



One truth about urban transport: It does not matter what is done, traffic jams will become worse; unless a radically new model is adopted.

城市交通的一个事实是：无论采取何种措施，交通拥堵都只会越来越严重，除非采取一种新的革命性的模式。

Trying to solve traffic jams building more road infrastructure is like trying to put out a fire with gasoline

为了解决交通拥堵而修建更多的道路基础设施就象是火上浇油

TRANSPORT
交通

Road infrastructure investments lead to lower population densities and do not solve traffic jams

道路基础设施投资会导致人口密度降低，且并不会解决交通拥堵问题

TRANSPORT
交通

When bigger roads are built, the city grows farther and motor-vehicles travel longer distances.

It is the same having double the number of cars, as having the same number of cars doing double the distance.

修建了更宏伟的公路后，城市会变得更大，机动车也可以行驶得更远。

让同等数量的汽车行驶双倍的距离与让汽车的数量翻番所产生的效果是一样的。

TRANSPORT
交通

It would take Chinese cities many years to have a road infrastructure like that of Houston, Atlanta or Seattle. Yet in those cities TIME LOST IN TRAFFIC JAMS INCREASES EVERY YEAR.

中国的许多城市要拥有休斯敦、亚特兰大或西雅图那样的道路基础设施可能需要花上很多年的时间，但是这些城市在交通拥堵上所消耗的时间却逐年递增。

TRANSPORT

Today less than 10% of the population of a city like Kunming uses cars for their daily transport. What would happen if every citizen older than 16 would drive a car? The city would collapse. Or we would have to make a city good for cars, terrible for people.

昆明目前只有10%的人使用小汽车。如果每个16岁以上的人都开车，昆明就会变成一个不适宜居住的城市。

TRANSPORT

交通

Cars are wonderful but they don't function well if we all decide to use them simultaneously at peak hours

汽车是美好的，但是如果我们所有人都同时决定在高峰时段使用它们，它们就无法展现自己美好的功能

The only solution is public transport, but not for those with lower incomes, but for everybody.

唯一的解决方案是使用公共交通。但不仅仅是指那些低收入者，而是指每一个人。

TRANSPORT

交通

Transport is not a technical, but a political issue. Who benefits from the policies adopted?

交通并不是技术问题，而是政治问题。谁是现行的政策的获益者？

Which is the objective of our transport policy?

我们的交通策略的目标是什么？

a. **Provide efficient mobility for all.**

b. **Minimize traffic jams for the higher income groups.**

a. **为所有的人提供便捷。**

b. **为高收入群体减轻交通拥堵。**

Public road investments aimed primarily at reducing traffic jams are highly regressive: They take resources needed by the poor in rural and urban areas.

主要为了减少交通拥堵而进行的公路投资实际上是一种严重的倒退，因为它们夺走了农村和城区的贫穷者所需要的资源。

TRANSPORT
交通

Quality public transport is necessary but not sufficient. Car use must be restricted.

高质量的公交系统是必需的，但远远不够。必须限制对小汽车的使用。

TRANSPORT

交通

Severe car use restrictions are the only effective means to achieve:

- Public transport use
- Population density

严格限制小汽车的使用是实现下列目标的唯一有效途径：

- 使用公交系统
- 高人口密度

TRANSPORT

交通

Among the means to restrict automobile use are:

-Tag number-based restrictions
-Tolls
-High fuel prices
-Parking restrictions
-Ban on peak hour use
-Traffic jams

限制使用汽车的方法有：

-基于车牌号码的限制
-通行税
-提高油价
-停车限制
-高峰时段禁令
-交通拥堵

TRANSPORT
交通

If density and use of public transport are our goals, traffic jams may not be a problem, but a useful tool. Traffic jams make people want to use public transport and not live far from the center.

如果高人口密度和使用公交系统是我们的目标，则交通拥堵就不应该被看作是问题，而应该是一种有用的工具。 交通拥堵会让人们感到需要使用公交系统，并且住在离市中心不远的地方。

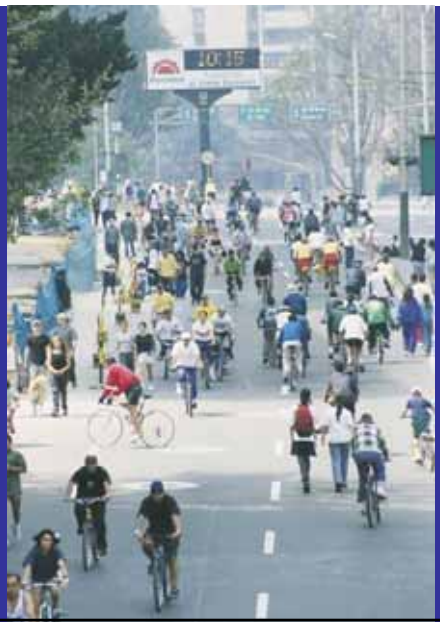
TRANSPORTES

Bogotá Experience: TRANSPORT
波哥大实战经验：交通

Through a tag number system, 40 % of all cars have to be off the streets during peak hours two days every week. This reduced trip times by about 21 minutes and lowered pollution levels. Gas consumption went down 10.3%.

通过车牌号码系统，波哥大有 40% 的小汽车在早上和下午各有两个小时不能上路。此方案使路上花费的时间缩短了约 21 分钟，并且降低了污染程度，汽油的消耗也降低了 10.3%。

Bogotá: CAR FREE DAY
波哥大：无车日



Bogotá: CAR FREE DAY
波哥大：无车日

During 13 hours all citizens meet as equals in public transport, bicycles or walking. It builds community

在 13 个小时之内，所有的居民都通过公交系统、自行车或步行的方式平等地聚在一起 。这样就形成了有凝聚力的团体

Bogotá : REFERENDUM
波哥大：公民投票

People enjoyed the adventure. Afterwards in the referendum of October 2000, nearly 64% of voters approved establishing a car free the first Thursday of February every year.

人们看起来很满意这场冒险的结果 。在 2000 年十月举行的一次公民投票中，近 64% 的投票者赞成将每年二月份的第一个星期四定为无车日

TRANSPORT
交通

Banning car use during peak hours would result in:

- **Lower travel times for the majority (more time with children)**
- **Less pollution**
- **Less public investment for high income groups and more for the poor**
- **Suburban sprawl is discouraged. Density is stimulated**

禁止在高峰时段使用小汽车会导致：

- **大多数人在路上花费的时间更少（与孩子们在一起的时间更多）**
- **污染降低**
- **用于高收入群体的公共资金减少，而用于贫穷者的则增多**
- **城市向郊区的蔓延受到抑制。人口密度增加**

TRANSPORT
交通

The people of Bogotá voted positively a referendum asking whether they wanted all cars off the streets every week-day between 6 AM and 9 AM and between 4:30 PM and 7:30 PM from January 2015 onwards.

波哥大市的公民积极地参与了公民投票，以决定是否在 2015 年一月之前，每周的工作日的上午 6 点至 9 点和下午 4:30 至 7:30 之间都禁止小汽车上街。

TRANSPORT
交通

Manhattan, New York's central island, is probably the richest city in the world. Yet, more than 90% of its inhabitants do not own a car. They use public transport. And if they want to go the week-end to the beach or the countryside, they rent a car.

在纽约市中心的曼哈顿，这个可能是世界上最富裕的地区，却有 90% 以上的居民都没有小汽车。他们都乘坐公交系统，只有在周末要去海滩或乡村之类的地方时，才会去租车。

TRANSPORT
交通

Chinese cities can become as rich as New York. But they can have an even better quality of life: They can have more parks and sports fields, more pedestrian streets, more bicycles; smaller buildings. New York citizens would want all that but they learned that too late.

中国的城市可以象纽约一样富裕，但他们可以同时获得更高的生活质量：更多的公园和运动场所，更多的步行街，更多的自行车和更好的建筑。纽约的市民也渴望这些，但是他们觉悟得太晚了。

Amsterdam, The Netherlands

荷兰阿姆斯特丹

TRANSPORT

交通

Cars are a means of social differentiation: Those who have and those who don't; between those who have more expensive ones and others who don't. Bicycles tend to integrate people in a more democratic manner.

小汽车反映出社会阶层的差异：例如有小汽车的和没有小汽车的人；有昂贵的小汽车和只有低档小汽车的人。而自行车则以更为民主化的方式将人们融合到一起。

Bicycles are not for the poor: Denmark has a higher income per capita than the United States. And nearly 40 % of Copenhagen's population use the bicycle daily.

自行车并不是穷人专用的：丹麦的人均收入比美国还高，但哥本哈根近 40% 的人都使用自行车日常代步。


A Hundige


Groningen

Quality bicycle infrastructure is evidence of democracy: it shows that a citizen on a bicycle is equally important as one in an expensive car.

良好的自行车基础设施是民主政治的反映：它表明一个骑在自行车上的公民与另一个坐在豪华轿车中的公民同等重要

Houten, The Netherlands

BIKE PATHS

自行车道

Bogotá riders increased from 0,3% to 4,4% of population.

波哥大骑自行车的人从占总人口数的 0.3% 上升到了 4.4%。

TRANSPORT
交通

Urban planners and mayors of the advanced world envy China's massive use of bicycles. But without the protection of quality physical infrastructure they will disappear.
发达国家的规划者和市长羡慕中国大量的自行车交通。但是如果不进行合理的基础设施保护，中国的自行车也会消失。

TRANSPORT
交通

Rail mass transit is wonderful; but it is expensive.

轨道交通客运是一种很好的运输方式，但是太昂贵了。

TRANSPORT
交通

Underground trains: It is nicer to go on the surface, with sunlight, looking at a city. Those who say underground metros are wonderful, have not had to take one everyday to work.

地铁：最好还是在地面上行驶，可以在阳光的沐浴下欣赏城市。
那些对地铁大加赞美之辞的人肯定不用每天上班时都乘坐地铁。

TRANSPORT
交通

Elevated trains are nicer to ride and cost much less than underground ones.

相比地铁，乘坐高架列车感觉更好，费用也低得多。

But elevated trains deteriorate the quality of public space…
高架列车损害了公共活动场所的质量…

This used to be an elevated train in Paris. Now is a park
这儿曾经是巴黎的一处高架列车，但现在是公园

Elevated trains deteriorate the quality of public space…

高架列车损害了公共活动场所的质量…

Rail systems can only serve a very limited area of a city. Not one developing country city rail system serves more than 10% of population.
BRT`S can achieve very high coverage at low investment costs.

轨道交通系统只能覆盖城市中极为有限的一部分区域。没有一个发展中国家的城铁系统能够为 10% 以上的人服务。
BRT 则可以在投资成本很低的情况下达到极高的覆盖面。

TRANSPORT
交通

If public transport is to reach all points of Chinese cities during the next 100 years, the ONLY public transport we can talk about is buses.

如果在一百年内中国的公交系统能够覆盖到城市中的每一个角落，只有公共汽车这一种公交工具能够做到。

TRANSPORT
交通

If a few lanes are given exclusively to public transport, it is possible to structure mass transit systems, with similar speed and capacities as rail systems, at much lower costs.

如果能为公交系统单独划出少量专用车道，就可以构建这样一种大型公交系统：其速度和容量与轨道交通系统不相上下，但是成本要低得多。

TRANSMILENIO

TRANSPORT

交通

TransMilenio moves more passengers per kilometer/hour than 90% of rail systems in the world at a similar speed. It moves 77% as much passengers per kilometer/hour as the Hong Kong metro.

在速度相同的情况下，TransMilenio 可以比世界上90%的轨道交通运输更多的乘客。它每公里/小时运输的乘客人数相当于香港地铁运载量的77%。

TransMilenio runs in the middle to minimize obstacles from cars coming out of driveways; and because in this way it needs only one station and not two, one in each side of the road.

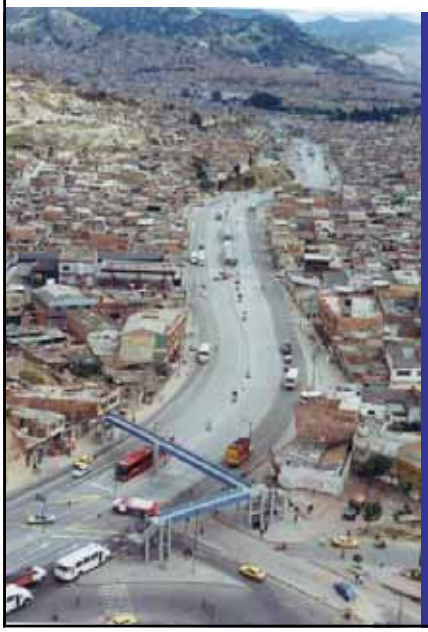
TransMilenio 是在路中间行车，以尽量减少汽车从车道上转出时可能造成的拥堵。由于采取这种方式，它仅需一个车站，而不是在马路两侧各一个车站。

TRANSMILENIO

Two exclusive lanes in each direction or a bypass at the station is very important, because some buses stop at every station, and others only every five, ten, or 20 stations. This multiplies the system capacity and speed.

在每个方向上设置一条专行线或者在车站处设置一条旁路是很重要的，因为有些公交车每站都停，而有些则每五站、十站甚至二十站才停。通过这种方式，该系统的容量和速度都得到了成倍的提高。

TransMilenio



Infrastructure: Corridors

基础设施：长廊

TransMilenio

Infrastructure: Stations
基础设施：车站

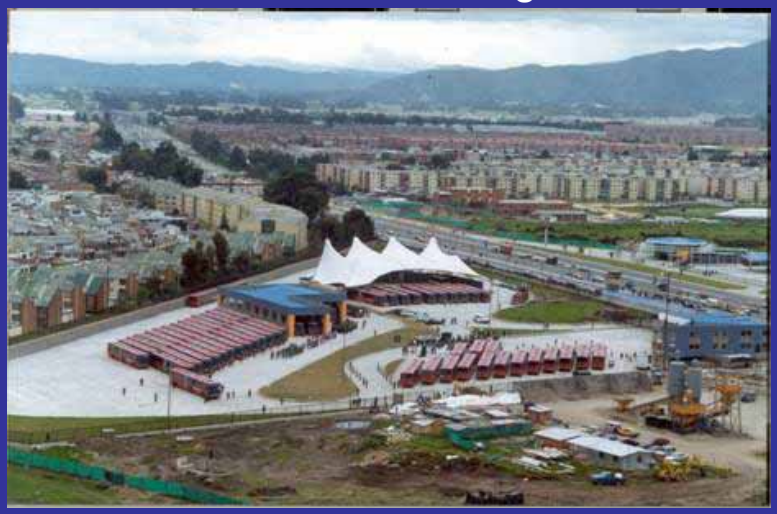
TransMilenio

Infrastructure: At grade pedestrian crossing

基础设施：水平行人交叉路

TransMilenio

Infrastructure: Garages



基础设施：车库

TRANSMILENIO 支线公共汽车

Operation: Feeder Service

TRANSMILENIO FEEDER BUSES

TRANSMILENIO 支线公共汽车

Bus based transit systems have advantages:
Lower investment cost
Lower operational cost
More labor intensive
Much higher share of transport for equal investment
Surface travel is more pleasant
Flexible

以公共汽车为核心的运输系统有下列优势：
投资成本低
经营成本低
劳动密集型的特点
在同等投资的情况下运输率更高
在地面上行驶使人心情更好
灵活

TRANSPORT
交通

A BRT must be identified as high quality transport. It's color, its route, its service, must appeal to high income customers.

BRT 必须以高品质公交系统的面貌出现。它的颜色、路线、服务都必须能够吸引高收入客户。

TRANSPORT
交通

11% of TransMilenio passengers own a car but prefer to leave it at home.
11%使用新世纪交通系统的乘客拥有私人车辆，但他们愿意使用公交，将小汽车放在家里。

TRANSPORT
交通

High quality public pedestrian space around BRT systems is as important as buses themselves. BRT projects must be urban improvement projects. Citizens must wish the system to come to their neighborhood.

BRT 系统周围高质量的步行公共活动场所与公共汽车自身同样重要。BRT 工程必须是一项城市改善工程，必须做到让市民们期待该系统进驻他们的居住区。

TRANSPORT
交通

Rail systems demand enormous resources, which are taken from other valuable uses. For the cost of one subway line that would move 10% of the population at best, TransMilenio will solve the city public transportation needs.

轨道交通系统需要占用大量的资源，而这些资源本来可以用在其他更有意义的地方。一条地铁线路最多只能携运全市 10% 的人，但如果将该地铁线路的成本投在 TransMilenio 系统上，则它可以满足整个城市的公交需求。

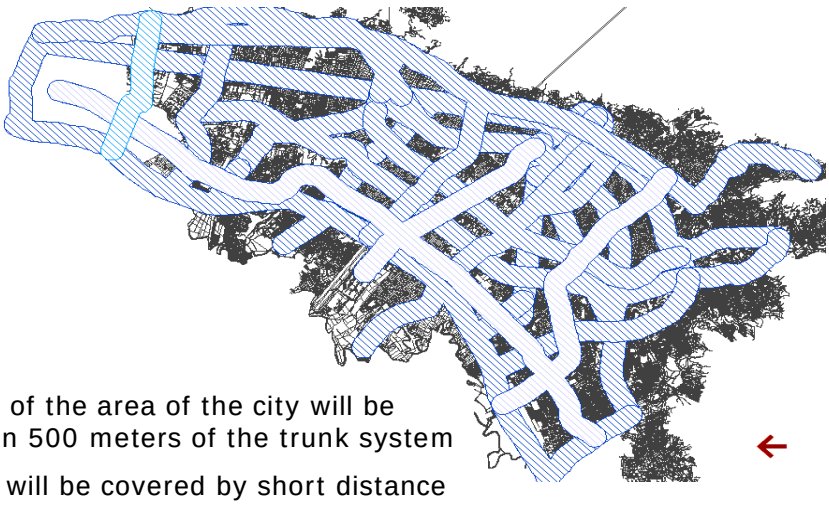
TRANSPORT
交通

In Medellín, another Colombian city, an elevated and surface rail system was built at a cost of $ 2900 million. It moves 300.000 passengers per day and has operational loses. TransMilenio's first phase cost $ 250 million, moves nearly 800.000 passengers daily and makes a profit.

在哥伦比亚的另一个城市麦德林，修建了一套成本为 29 亿美元的高架和地面铁路系统，它每天只能运输 30 万人次的乘客，而且还处于亏损经营状态。而 TransMilenio 的第一阶段成本仅为 2.5 亿美元，却每天能运输近 80 万人次，而且还能盈利。

TRANSMILENIO

BOGOTA 2020, TOTAL SYSTEM



85% of the area of the city will be within 500 meters of the trunk system

Rest will be covered by short distance feeder systems

TRANSPORT

交通

IN TERMS OF TRANSPORT, A CIVILIZED CITY IS NOT THAT ONE WITH HIGHWAYS BUT RATHER, ONE WHERE A CHILD ON A TRICYCLE CAN SAFELY GO ANYWHERE

就交通方面而言，一个文明的城市并不是公路修得有多好的城市，而是骑在三轮车上的儿童可以安全地四处撒欢的城市

北京快速公交系统规划设想与示范工程

Beijing BRT Development Plan and Demonstration Project

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Deputy Secretary General, Beijing Municipal Government

2004年11月

报告内容 Content

一、发展建设BRT是城市可持续发展的必然选择
BRT is the necessary choice for Beijing

二、北京BRT发展规划设想
BRT Development Plan

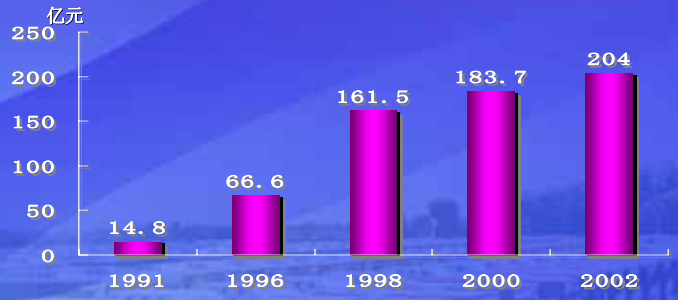
三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

一、发展建设BRT是城市可持续发展的必然选择

BRT is the necessary choice for Beijing

交通投资持续增长，设施供给水平不断提高

Transportation investment increased, higher supply



1993-2003年，交通投资1219亿元，占GDP的5.24%，道路里程增长了33%

1993-2003: 121.9 billion RMB investment, 5.24% GDP. Roadways increased by 33%.

一、发展建设BRT是城市可持续发展的必然选择

BRT is the necessary choice for Beijing

交通形势依然严峻

- 严重拥堵点段达87处
- 主要干道高峰期车速降至12公里/小时
- 约40%的出行者出行时间在1小时以上
- 中心区路网平均负荷度已达0.88。

Serious Traffic Issues

- 87 seriously congested areas
- Less than 12 km/h at rush hour
- 40% travel time above 1 hour
- Congestion is serious; average road load rate is 0.88.

一、发展建设BRT是城市可持续发展的必然选择

BRT is the necessary choice for Beijing

根本原因是需求增长大大超过供给增加

- 居民日出行量2003年较1986年增长80%，达到2100万人次
- 全市机动车保有量突破212万辆，较10年前增长了近200%
- 其中大部分为私人小汽车，达到100万辆

Supply Overwhelms Demand

- In 2003, passenger travel is 80% higher than 1986; 21 million daily trips
- Vehicle ownership: 2.12 million 200% higher than 10 years ago
- 1 million private cars

一、发展建设BRT是城市可持续发展的必然选择

BRT is the necessary choice for Beijing

发展战略选择

- 交通问题不能单纯靠增加供给解决，而应从控制引导交通需求，有效、合理的利用有限的交通基础设施等多方面统筹解决
- 制定了《北京交通发展纲要》，力求按照可持续发展的原则，确定全面、科学、系统的交通发展战略
- 大力发展公共交通，特别是快速轨道交通是《纲要》的重要内容之一

Development Strategy

- Traffic problems cannot be solved solely by increasing supply.
- The “Beijing Transportation Development Strategy” is based on the principle of sustainable development.
- Public transportation, especially rail, is the priority.

一、发展建设BRT是城市可持续发展的必然选择

BRT is the necessary choice for Beijing

BRT的提出

- 轨道交通建设投入大、周期长，很难在短期内发挥主导作用，难以满足交通需求的快速增长
- BRT是一种新型的公共交通方式，既具有轨道交通运量大、速度快的运营特点，又有地面公交投入小、建设周期短、运营灵活的优点

Why BRT?

- Rail requires a long construction time, huge investment, and cannot meet rapidly increasing demands.
- BRT is a new mode of transportation with rail's capacity, high speed, but low investment and flexibility.

一、发展建设BRT是城市可持续发展的必然选择

BRT is the necessary choice for Beijing

BRT的提出

为弥补轨道交通的不足，

适应迅速增长的交通需求，

特别是满足2008年奥运会

的需要，加快发展建设

BRT既必要又迫切

Why BRT?

To supplement rail and satisfy increasing demands, especially for the 2008 Olympic Games

There is a pressing need to speed up BRT development and construction.

二、北京BRT发展规划设想
BRT Development Plans

现有公共交通系统缺乏吸引力

- 结构不合理
  地面常规公共交通多，大容量、快速轨道交通少
- 地面公交服务水平低
  层次单一，行驶速度慢、准点率低、换乘距离远

Current Public Transit System Lacking

- Irrational structure: too many buses, high capacity, few subway lines
- Low bus service level: one system, slow, late, long transfer distances

二、北京BRT发展规划设想
BRT Development Plans

BRT发展规划基本思路是：
Basic Concepts

- 补充完善轨道交通
  Supplement rail
- 优化提升地面公共交通
  Upgrade bus system
- 充分与道路新建和改建相结合
  Integrate with road construction

过渡和替代
Transition and Substitution
扩展和延伸
Extension

整合现有线路，减少重复
形成地面快速公交走廊
To reduce redundant bus routes

BRT需要专用道路与车站设施，有一定的工程量
BRT needs priority lanes and special stations. Lots of work to be done

二、北京BRT发展规划设想
BRT Development Plans

BRT发展规划目标

- 大容量快速公交为骨干，常规地面公交为补充
- 由轨道交通、BRT、普通地面公交三层构成功能级配合理的综合客运网络
- 提高公共交通服务水平，增强公共交通吸引力，提高公共交通承担的出行比重

BRT Development Goals

- BRT is the backbone, supplemented by conventional buses
- Comprehensive network composed of rail, BRT, and conventional buses
- Enhance service level, make public transit more attractive, and increase its use

二、北京BRT发展规划设想
Development plans of BRT

快速公交系统近期建设设想
BRT implementation in short term

- 服务重点地区
  Serve main developing area
- 服务客流大的交通走廊
  Serve high traffic flow corridor
- 轨道交通间的衔接
  Connect with metro

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

线路概况

南中轴路是南城南北方向的主要交通走廊，沿线经过商业、居住、旅游等集中地区和4条干道。

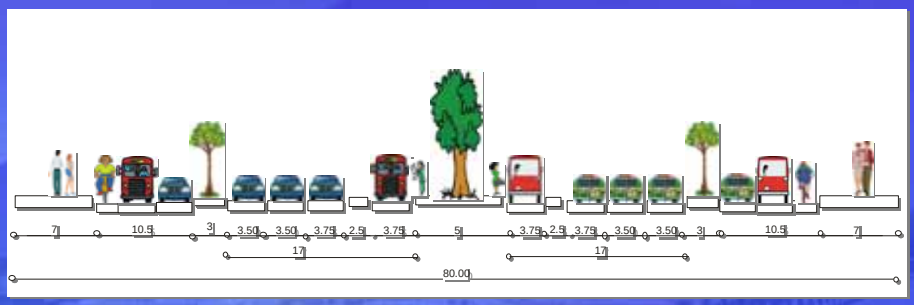
Route

Southern axis corridor is a major road, passing through commercial, residential, tourist areas, and 4 main roads.

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

线路概况

Route



地铁8号线的规划路由，红线宽度80米，双向6—8车道，中间预留18—23米的绿化带，可做为BRT建设用地

The road is 80m wide, 6-8 lanes on each direction, 18-23m green belt at center, reserved for BRT

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

线路概况

起点前门，终点德茂庄，全长16公里,全线设16个站，其中5个换乘枢纽站

Route

From Qianmen to Demaozhuang, 16 km, 16 stops, 5 interchange stations.

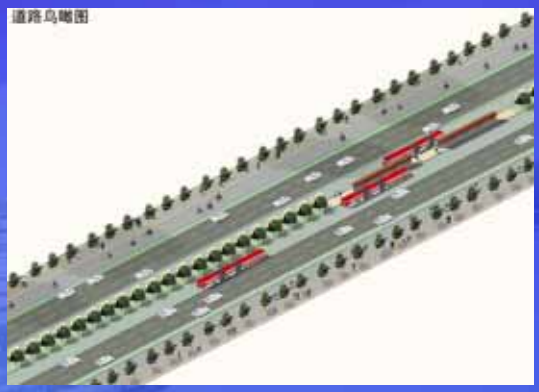
三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

设施配置—道路

中央专用车道，物理隔离。路段为上下行各一条车道，车站处增设超车道。

Roads

Exclusive, separated lanes, setting overpass lane at stops.



三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

设施配置—车站

封闭式车站、左侧开门、水平登降、站台售票

Stations

Enclosed stops, doors open on left side, level with bus floor, tickets sold on platform

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

设施配置—车辆

18米长单铰接车，大容量、低底板、装备空调、电子化、低排放

Buses

Single-articulated bus,18m long, high-capacity, air-conditioned, electric, low emissions

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

BRT智能交通系统

- 信号优先系统
- 售检票系统
- 站台安全防护系统
- 乘客信息服务系统
- 运营调度系统

Intelligent Transportation Systems

- Signal priority Control
- Ticketing
- Passenger information
- Platform Safety
- Bus Operations

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

BRT智能交通系统

- 信号优先系统

  以车辆实际通过路口时的本地优先为主，兼顾社会车辆运行

Intelligent Transportation Systems

- Signal Priority Control System

  Gives priority to BRT buses on roadways, while taking into account traffic flow

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

BRT智能交通系统

- 乘客信息服务系统

  在车站安装电子站牌及其他信息服务设施，为乘客候车及查询提供方便

Intelligent Transportation Systems

- **Passenger Information Service System**

  Electronic signs and route information for passengers at stations and on buses

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

BRT智能交通系统

- 售检票系统

  采用IC卡（交通一卡通）自动和人工售相结合的方式在站台上进行售检票

Intelligent Transportation Systems

- **Ticketing system**

  Combined system of IC cards and ticketing staff

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

BRT智能交通系统

- 运营调度系统
  - 采用计算机辅助编制行车计划和劳动配班计划
  - 通过定位和视频系统实时监控车辆运行和站台情况

Intelligent Transportation Systems

- Bus operating system
  - Computer aided bus and work schedules
  - Real time surveillance of buses and stations

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

BRT智能交通系统

- 站台安全防护系统

在站台与车辆间安装防护栏，安全门与车门同时开关

Intelligent Transportation Systems

- Station safety system

Protective gates between stops and buses, open/close automatically

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

运营方案

运营时间: 5:00-23:00
配车50部

运送速度: 30-35公里/小时

高峰发车间隔: 2-3 分钟

日客运能力：21万人次

Operation Scheme

Hours: 5:00-23:00
50 buses

Speed: 30-35 km/hr

During rush hour:
2-3 min intervals

Capacity: 210,000
people per day

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

建设模式

- 政府负责道路、桥梁等基础设施的投资建设
- 企业负责车辆、站台及相关运营管理设施建设
- 目前已组建北京市畅达通有限责任公司，作为项目业主单位

Construction mode

- Roads, bridges, and stops are government funded
- Buses, platforms, and operating systems are funded by private enterprises
- Beijing Chang Datong Co. Ltd. is overseeing the BRT Demonstration Project.

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

建设进度计划

2004年底前局部通车试运行，2005年全部建成

Construction scheme

One section will be in operation this year,the whole project will be completed next year.

三、北京南中轴路BRT示范工程概况
BRT Demonstration Corridor

预期效果

- 调整撤并公交线路14条，占现有线路的73%
- 运送速度比常规线路提高30—50%
- 南中轴路交通状况有很大改观，出行时间显著减少

Anticipated Results

- 14 bus lines eliminated, 73% of local lines
- 30%-50% faster than conventional buses
- Reduced travel time

对北京市乃至全国来说，BRT还是一件新生事物。我们相信通过不断的实践和探索，总结BRT的发展经验，对改善北京的城市交通系统，支持北京市全面、协调、可持续发展将具有深远的影响。

BRT is a new mode of transportation in Beijing as well as China. We believe that through continuous implementation, BRT will significantly improve Beijing's transportation system and have a major impact on Beijing's sustainable development.

谢谢！

Thank you!

统筹规划，建管并举，远近兼顾
推进上海城市交通现代化建设和管理

Furthering Shanghai Transportation Modernization and Management through Overall Planning, Dual Emphasis on Construction & Management, and Short/Long-Term Traffic Considerations

上海市人民政府副秘书长　洪 浩

2004年11月

Hong Hao, Vice Secretary General, Shanghai Municipal Government

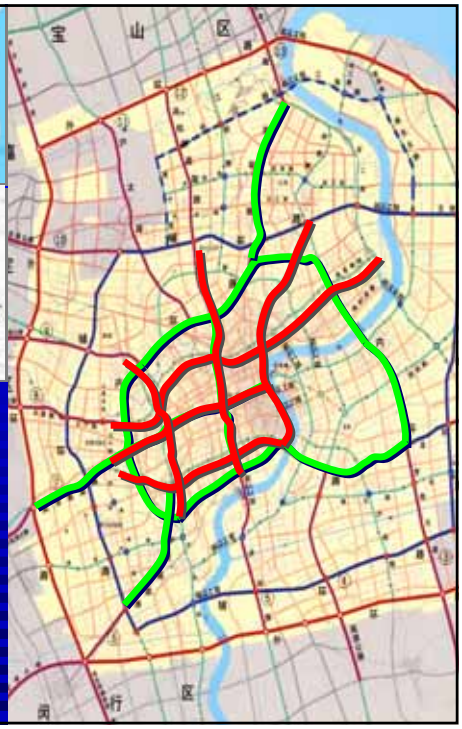
November 2004

◈ 上世纪90年代以来，上海城市交通进入多层次、立体化发展阶段

这一时期，在偿还历史欠帐的同时为今后发展提供了基本框架

◈ Since the 1990s, urban transport in Shanghai has entered a stage of multilevel development.

While addressing historical issues, this period has laid a basic framework for future development.



- 进入21世纪，上海交通设施建设开始向“枢纽型、功能性、网络化”发展
- Entering the 21st century, transportation facilities in Shanghai have developed towards the “hub, functional and networked” direction.

- 2002年，编制了城市交通白皮书，确立了“一体化交通”和“公交优先”战略
- In 2002, Shanghai established an “integrated transportation” and “bus priority” strategy.

这为在新的起点上全面推进城市交通的现代化建设和管理创造了重要条件

- This has created important conditions for the city to push forward comprehensive modern urban transport construction and management on a new starting point.

一、目前上海的城市交通状况和存在的主要问题

I. Current Status of Urban Transportation in Shanghai and Its Main Issues

上海的城市道路交通矛盾依然比较突出并呈加剧的趋势

Urban Road Transportation Problems in Shanghai

- 中心城行程车速为25公里。
- 局部地区高峰时段拥堵严重。
- 部分设施处于饱和运行状态。
- 道路交通的综合评价指数呈下降趋势。
- 整个路网系统的抗波动能力比较脆弱。

- Vehicle speed at 25KM/h in central city area.
- Heavy congestion in some areas at rush hour.
- Some facilities are saturated.
- Road transportation's comprehensive evaluation index is in on decline.
- The fluctuation capacity of the entire road network is still rather weak.

❖路网结构不合理 ❖Irrational road network

- 配置比例不协调，配套系统不完善，快速路、主干路疏解不畅。
- 快速系统的布局不尽合理，部分立交功能不全。
- 路网分布密度不均，部分地区设施供应尚未到位。

- Configurations are out of proportion and supplementary systems are unsound. Expressway and trunk road traffic flows are not smooth.
- Rapid transit system layout is not rational and some crossover functions are unsound.
- Road network distribution intensity is uneven and some areas have yet to have proper facilities.

❖通行环境不理想

- 机非混行十分严重，人车争道，相互干扰，使重要路段、节点通行能力损失近50%。
- 道路交叉口的冲突问题比较突出。

❖ Undesirable Traffic Environment

- People and vehicle vie for road space, causing serious interference and reducing the passing capacities of important road segments and nodes by almost 50%.
- There are serious problems at intersections.

❖公共优先的地位尚未真正确立

❖ Public Transit has not been made a priority

- 公交占总出行量22.3%，与其主体地位不匹配，服务水平有待提高，可持续发展的机制尚未完全形成。
- 轨道交通超负荷运行，换乘枢纽建设亟需加快建设。

- Although public transportation accounts for 22.3% of the total traffic volume, it has not been give proper consideration. Service needs improvement and sustainable development mechanisms have yet to be fully formed.
- Rail transit runs at overload and transit hub building needs to be accelerated.

❖停车资源统筹不到位

- 公共停车泊位缺口较大。
- 由于涉及部门多，统筹协调不够，设施利用率仅50%。

❖ Inadequate overall planning for parking resources

- There is a big shortage of public parking place.
- Due to the many departments involved, overall planning and coordination are inadequate and the facility utilization rate is only at 50%.

❖交通管理水平需要提高

- 规划、建设、管理等资源需要进一步整合，基础数据采集、定量分析和综合研究有待加强。
- 在大规模建设中交通组织的整体性、系统性需要加强。

❖ Transportation management needs to be improved.

- Planning, construction and management resources need to be further integrated basic data collection, quantitative analysis and comprehensive research need to be strengthened.
- In large-scale construction, the integrity and systematic feature of transportation organization need to be strengthened.

上海城市交通矛盾深层次原因：

Main Causes of Shanghai's Transportation Problems

- 中心城开发强度大。
- Intensive downtown development
- 中心城人口密度高。
- High population density in downtown area
- 部分区域行政、商贸、文化、居住等设施过度集中布局。
- Highly concentrated administrative, commercial & trade, cultural and residential facilities in some areas
- 交通容量规划控制和交通评估制度尚未建立。
- Traffic capacity planning, control and evaluation system are not yet in place

二、推进上海城市交通现代化的总体思路和发展目标

II. Overall Consideration and Development Goals for Urban Transportation Modernization in Shanghai

- 从经济社会发展看，2010年前，上海经济发展保持两位数增长率，人口总体维持目前规模并略有增长，物流、客流将快速增长
- Shanghai will maintain a two-digit economic growth rate before 2010, the population stay at the current level with slight growth, and goods and passengers will experience rapid growth.
- 从交通情况看，出行总量、机动车在未来5年中都将有较大幅度增长，机动车出行居高不下
- As for traffic, travel volume and vehicle population will experience a surge in the next 5 years.
- 从设施供应看，2010年前，轨道交通运能增加跟不上需求快速增长，中心城道路增量不可能大规模集中供应
- Rail capacity and roads will not keep pace with the fast growing demand by 2010.

上海交通发展的"三个基本判断"

"Three Opinions" on Shanghai's Transportation Development

第一个基本判断： *综合人口、经济总量、土 地开发强度和2010年世博会，以及预测机动车保有量250万辆等因素，今后一个阶段，本市交通需求将呈现出快速、持续增长的趋势*

Opinion 1: In consideration of such factors as population, economy, land use intensity, the World Expo 2010, and the projected 2.5 million vehicles, the traffic demand will continue to steadily grow.

上海交通发展的"三个基本判断"

"Three Opinions" on Shanghai's Transportation Development

第二个基本判断： *2010年前，中心城轨道交通快速扩容，道路设施资源仍有一定增量，但设施供应难以满足需求增长*

Opinion 2: Downtown rail transit will expand rapidly, and there will be an increase in road infrastructure by 2010. The infrastructure, however, will still fall short of demand.

上海交通发展的"三个基本判断"

"Three Opinions" on Shanghai's Transportation Development

第三个基本判断： *优化城市功能布局需较长过程，当前及今后一个时期交通工作的重点是，在加大建设力度的同时更需要提高交通管理水平，充分发挥有限资源的作用*

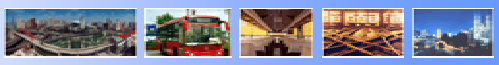
Opinion 3: It will take a long time to optimize urban transportation. Current and future transportation work will focus on upgrading the transportation management level, and fully leveraging the role of the limited resources, while boosting construction momentum.

上海城市交通现代化建设和管理的总体思路：

Overall thinking for the urban transportation modernization construction and management in Shanghai

- 按照交通白皮书确定的战略，*确立交通是城市发展永恒主题的理念，交通管理是政府基本职责的观念，到2010年坚持把缓解交通矛盾放在“重中之重”地位的意识。*

- In line with the strategy set in the transportation white paper, we have made transportation the permanent theme of urban development, assumed basic government responsibility over transportation management, and made solving transportation problems by 2010 a top priority.



上海城市交通现代化建设和管理的总体思路：

Overall thinking for the urban transportation modernization construction and management in Shanghai

- 根据“需求持续增长、设施供应有限、管理潜力较大”的状况，*坚持以统筹规划为先导，软件与硬件并举、远期与近期兼顾、增量与存量协调、统筹运用规划、经济、法律、社会等手段，推进设施、政策、管理、体制联动，核心是进一步优化交通资源合理配置和科学使用。*

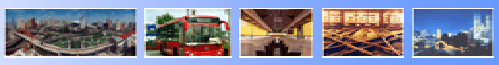
- We have taken lead in overall planning equally stressed software and hardware, combined short-term and long-term considerations, coordinated capacity growth and maintenance, unified the planning, economic, legal and social means, pushed forward the interaction of infrastructure, policy, management and system. The key is to further optimize the rational deployment and scientific utilization o transportation resources.

❖规划控制

❖Planning & Control

合理的规划布局，清晰的功能划分，严格的容量控制，应作为解决城市交通问题的基本前提。

Rational planning and layout, clear functional divisions and strict capacity control should be made the basic preconditions for solving urban transport problems.

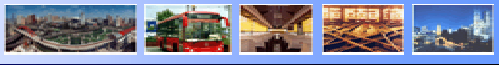


❖需求管理

❖Demand Management

长期坚持交通总量控制政策，以经济杠杆为主、行政手段为辅，实行由“限制拥有”向“限制使用”并举转变。

Persistently adhere to the total transport control policy, use economic leverage in the main and administrative means as the supplement, and make the change from “restricting ownership” to “restricting use”.

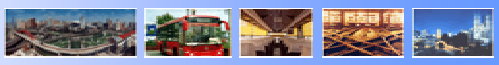


❖路网配置

优化路网配置应当坚持加快设施建设、实施功能细分、优化配置比例的同步推进。

❖Road Network Deployment

Optimizing road network deployment should adhere to the concurrent promotion of speeding up facility building, implementing functional segmentation and optimizing configuration proportions.

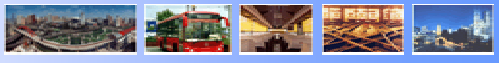


❖公交优先

推进规划落地、路权优先、线网优化、票制创新、政策扶持，作为落实公交优先战略、增强公交吸引力的基本内容。

❖Bus Priority

Pushing forward plan implementation, road right priority, line network optimization, ticket system innovation and policy should be made the basic contents for carrying out the public transportation priority strategy and strengthening the attraction of public transportation.

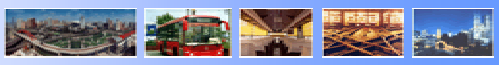


❖非机动车调控

❖ Non-motorized Vehicles

科学把握城市的机动化进程与慢行交通的关系，明确非机动车地位，给予出路，减少其负面影响，是目前对待非机动车问题的对策。

In the scope of comprehensive transportation, we shall scientifically weigh the relationship of urban motorization to slow transportation. The current policy for non-motorized vehicles is to identify their role, offer a replacement transportation method, and minimize the negative impact.

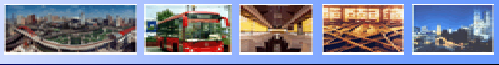


❖体制整合

❖System Integration

◈ 设施资源高度紧缺情况下相对集中行政管理资源，有利于更好地利用现有设施和社会资源，同时，坚持严格执法、严格管理。

Strengthen overall management, set up relatively centralized administrative resources and help better use the existing infrastructure and social resources. At the same time, we should strictly enforce the law and management.



2010年上海城市交通发展总体目标：

Overall objective for Shanghai's Urban Transportation Development by 2010

- 积极消化交通需求增长因素，努力保持中心城道路交通基本畅通，坚决防止出现大面积、长时间的交通堵塞，初步确立公交优先的交通格局，形成统筹协调的管理体制，加快交通管理信息化建设，使城市交通基本做到供需平衡，总体适应世博会要求。

- Incorporate traffic demand growth factors, strive to keep downtown traffic flowing smoothly, avoid traffic congestion in large areas, preliminarily establish a public transportation priority system, set up a coordinated management system, speed up traffic management IT construction, keep supply and demand in balance, and meet the requirements of the World Expo 2010

主要指标：

Main Targets:

道路交通：行程车速维持在25公里/小时	Road Transit: Vehicle speed at 25km/h.
轨道交通：中心城平均出行时间控制在“1小时内”	Rail Transit: Average travel time in downtown area within 1 hour
公路交通：实现“15、30、60”高速公路规划目标	Highway Transit: Achieve the “15, 30, 60” highway planning objective.
公共交通：出行比重占全市总出行量30%以上，轨道交通比重占公交出行总量的40%以上	Public Transportation: Account for at least 30% of total passenger flow volume in Shanghai, and rail transit accounts for at least 40% of total volume.
静态交通：公共停车泊位与机动车保有量比由目前10%提高至13%，公共停车设施利用率由目前50%提高至70%	Static Transportation: Public parking increases from 10% now to 13%. The utilization rate of parking facilities increases from 50% now to 70%.
智能交通：建成中心城道路交通信息采集、发布系统	Intelligent Transportation: Establish a downtown road traffic information Acquisition and release system.

三、当前和今后一个时期加强交通建设和管理的主要措施

III. Main Measures for Strengthening Transportation Construction and Management

（一）加强规划引导和控制

(I) Strengthening planning guidance and control

1. 改善中心城规划布局。
2. 加快控制性单元规划编制。
3. 保证交通设施建设用地
4. 实行交通影响评估制度。

1. Improve the planning and layout of the downtown area.
2. Speed up compilation of control unit plans.
3. Ensure land for transportation facility construction use.
4. Implement a transportation impact assessment system.

（二）加快道路设施建设，完善使用管理
(II) Speed up road road facility construction，improve use management

- 加快设施建设方面
- ❶ 优化中心城路网络布局
  - ➢ 加快建设中心城道路改善工程
  - ➢ 推进主干路交叉口立交化
- Speed up facility construction
- ❶ Optimize road network layout in the central city area
  - ➢ Speed up road improvement project implementation in the downtown area
  - ➢ Promote crossover construction at intersections on trunk lines

（二）加快道路设施建设，完善使用管理
(II) Speed up road road facility construction，improve use management

- 加快设施建设方面
- ❷ 推进越江设施建设
  - ➢ 新增6条越江隧道，计36车道
  - ➢ 结合路网调整，优化越江设施规划布局
- Speed up facility construction
- ❷ Push forward Huangpu River Crossing construction
  - ➢ Build 6 new river tunnels, totaling 36 lanes
  - ➢ Combined with road network changes, optimize river crossing planning and layout

（二）加快道路设施建设，完善使用管理
(II) Speed up road road facility construction，improve use management

◆ 加快设施建设方面

❸ 建设集疏运配套路网

➢ 使联系江浙的高速公路通道达到10条、60个车道

◆ Speed up facility construction

❸ Build supplementary road networks for transport convergence and divergence

➢ Increase the number of highways linked to Jiangsu and Zhejiang to 10, with a total of 60 lanes

（二）加快道路设施建设，完善使用管理
(II) Speed up road road facility construction，Improve use management

◆ 完善使用管理方面

❶ 推进道路交通功能细分

➢ 加快建设由快速、非机动车、公交等专用网络，以及相应步行系统组成的道路交通网络

◆ Improve use management

❶ Improve road transport function segmentation

➢ Speed up construction of of a road transport network consisting of BRT, non-motorized vehicles and public transportation networks and corresponding pedestrian system.

（二）加快道路设施建设，完善使用管理
(II) Speed up road road facility construction，Improve use management

◆ 完善使用管理方面

❷ 扩大“禁左”道路系统

➢ 稳妥实施内环浦西范围禁左，在目前760个交叉口（约占总路口数36%）部分或全部进口车道禁左基础上，逐步扩大规模，非机动车同时禁左

◆ Improve use management

❷Expand “Left Turn Ban” road systems

➢Continue implementing the no-left-turn policy for the Puxi area inside the inner ring and in some of the 760 intersections (accounting for some 36% of the total road crossings) , gradually expand the coverage and forbid left-turn for non-motorized vehicles.

（二）加快道路设施建设，完善使用管理
(II) Speed up road road facility construction，Improve use management

◆ 完善使用管理方面

❸ 推进单行道系统建设

➢ 中心城涉及388条道路，内环以内约占6成

➢ 以内环浦西区域为重点，除“三纵三横”外，有条件的次干路和支路，分阶段推行

◆ Improve use management

❸ Push forward one-way lane system construction

➢*The central city involves 388 roads and the area inside the inner ring accounts for some 60%.*

➢*With Puxi in the inner ring as the key area, build secondary trunk lines and branch routes by stage in addition to the “Three East-West Roads and Three South-North Roads”.*

（三）推进公交优先发展

(III) Bolster Public Transit Priority Development

1. 加快建设轨道交通基本网络
2. 加强公交客运枢纽体系建设
3. 确立公交专用路权和优先权
4. 发展快速公交（BRT）系统
5. 优化中心城地面公交线网布局

1. Strengthen construction of basic rail transit network
2. Strengthen public passenger transportation hub system construction
3. Establish public transport's exclusive road right and priority right
4. Develop BRT system
5. Optimize ground public transport line network layout in downtown area

（四）加强静态交通建设和管理

(IV) Strengthen Static Transportation Construction and Management

1. 推进设施规划建设
2. 实施区域差别政策
3. 完善停车管理机制
4. 发展停车信息化系统

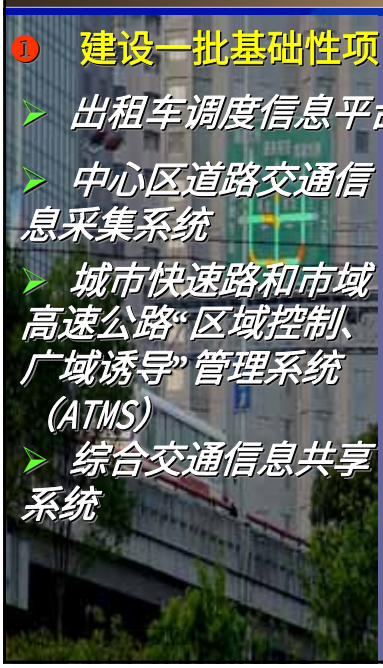
1. Push forward facility planning and construction
2. Implement regional differentiation policies
3. Improve parking management mechanisms
4. Develop parking IT system

（五）完善机动车调控政策
(V) Improve vehicle control policies

1. 完善总量控制政策
2. 深化公车改革
3. 深入研究“拥挤收费”

1. Improve total volume control policy
2. Deepen public vehicle reforms
3. Conduct research on “congestion charging”

（六）大力推进交通信息化 (VI) Promote IT applications



1. 建设一批基础性项目
   - 出租车调度信息平台
   - 中心区道路交通信息采集系统
   - 城市快速路和市域高速公路“区域控制、广域诱导”管理系统（ATMS）
   - 综合交通信息共享系统

1. Establish projects
   - Taxi scheduling information platform
   - Road traffic information collection system for the central district
   - ATMS for urban fast lanes and municipal highways
   - Integrated transportation information sharing system

（六）大力推进交通信息化 (VI) Promote IT applications

❷ 建立交通信息采集与综合评估体系

- 日常数据采集、更新机制
- 区域交通数据库
- 分析、评价、预警系统

❷ Establish traffic information collection and integrated evaluation system

- Daily data collection and update mechanisms
- Regional traffic database
- Analysis, evaluation, and warning system

（七）依法实行最严格的交通管理

❶ 完善交通法规体系

❷ 强化执法管理

❸ 严格机动车与驾驶员管理

❹ 提高社会市民参与程度

❶ Improve the traffic law and regulation system

❷ Strengthen law enforcement administration

❸ Strict enforcement

❹ Increase public participation

（八）完善交通工作体制

(VIII) Perfecting the Transportation System

❶ 市发展改革委负责组织制订综合交通政策及交通白皮书的修编

❷ 市建委负责交通白皮书的落实工作和综合交通建设管理的日常工作

❸ 理顺路政设施管理体制

❹ 深化道路建设市区分工机制

❺ 整合交通研究资源

❶The Shanghai Municipal Development and Reform Commission will be responsible for organizing comprehensive transportation policies and the revision of the white paper on transportation.

❷ The Shanghai Municipal Construction Commission will be in charge of work to implement the White Paper and daily integrated transport construction and administrative work.

❸ Streamline administration and facility management systems

❹ Deepen mechanisms for urban road construction work specialization

❺ Integrate transportation research resources

我们相信，经过坚持不懈的努力，上海的交通状况将会有一个基本的改善。

◈ We believe that through persistent efforts, transportation conditions in Shanghai can improve.


谢谢大家