

北京市机动车排放污染管理
VEHICLE EMISSION CONTROL
OF BEIJING

北京市环境保护局
BEIJING EPB

北京市基本情况

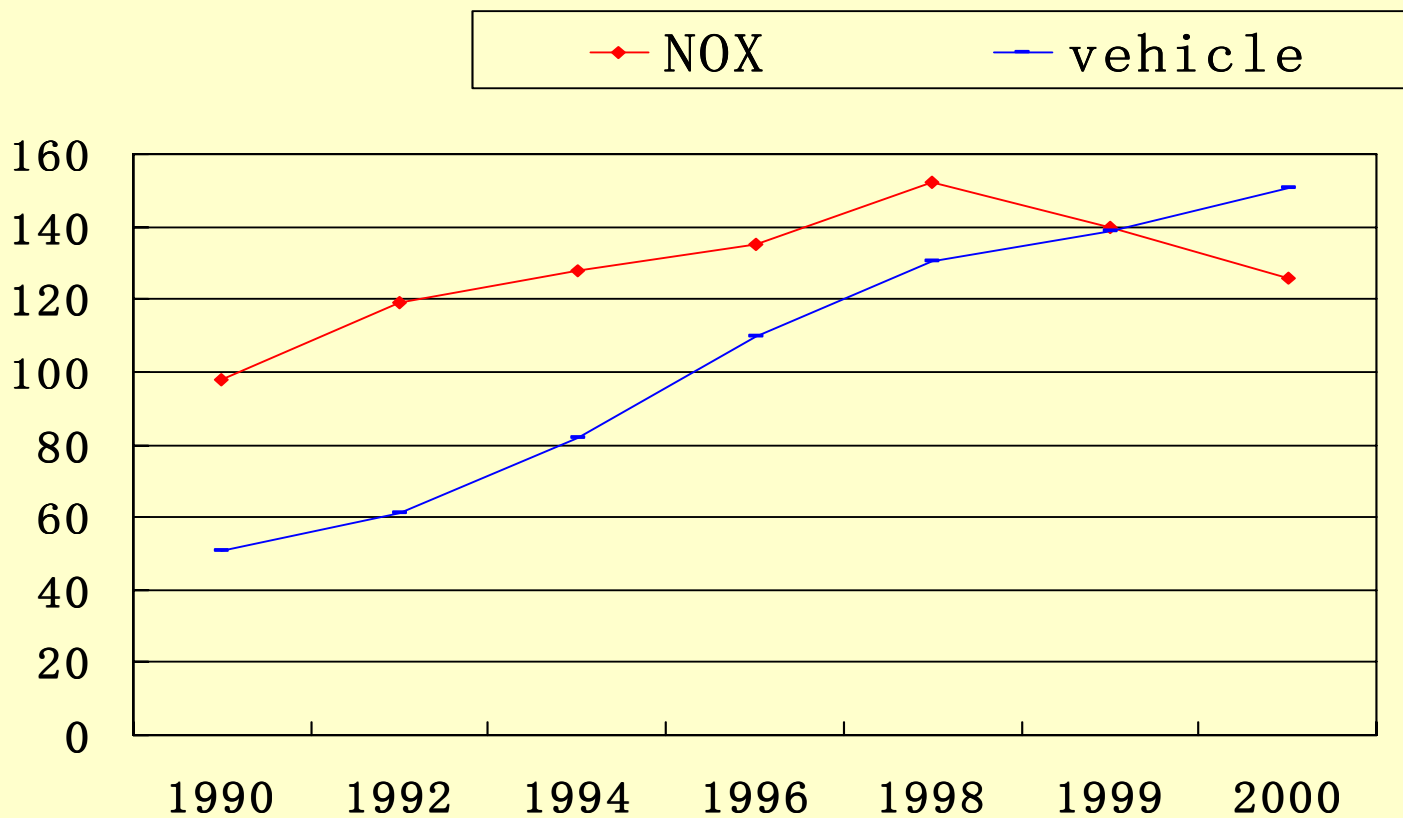
BRIFE INTRODUCTION

- Beijing area: 16800km²
- geography: Plato 1/3 , mountane2/3
- population: 12.50milions
- annul average temperature : 12°C
- annul average drop: 640mm
- road area: 43.00million km²
- total vehicles: 150.7milions

北京市大气污染的主要问题
the main problems of air pollutant of Beijing
(1998)

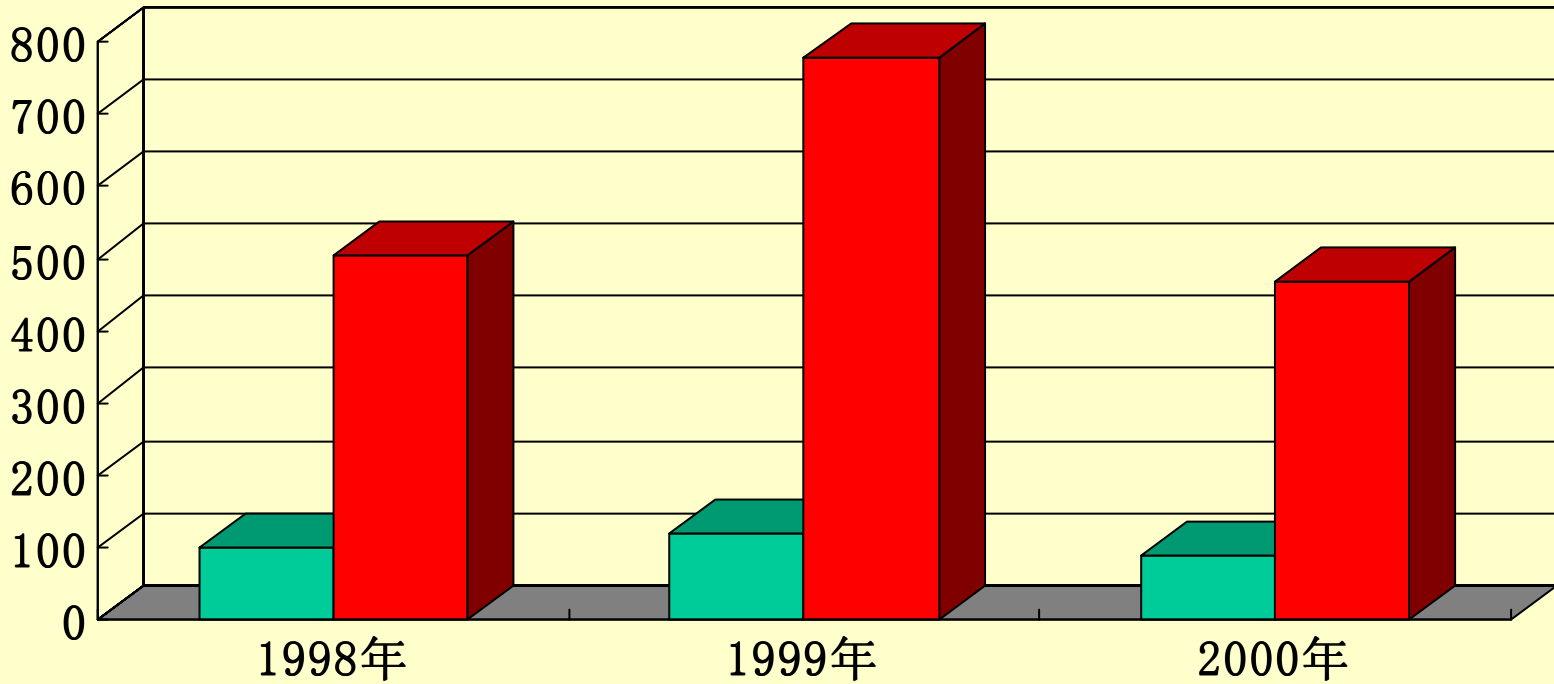
- 总悬浮颗粒物 (TSP) 超标 exceed 89%
- PM10 PM2.5 来源复杂 complexity resource
- 二氧化硫 (SO_2) 超标 exceed 100%
- 氮氧化物 (NO_x) 超标 exceed 204%

北京市机动车保有量与氮氧化物年变化 the relation between total vehicles and NO_x



北京市臭氧变化情况

O₃ circumstances of Beijing

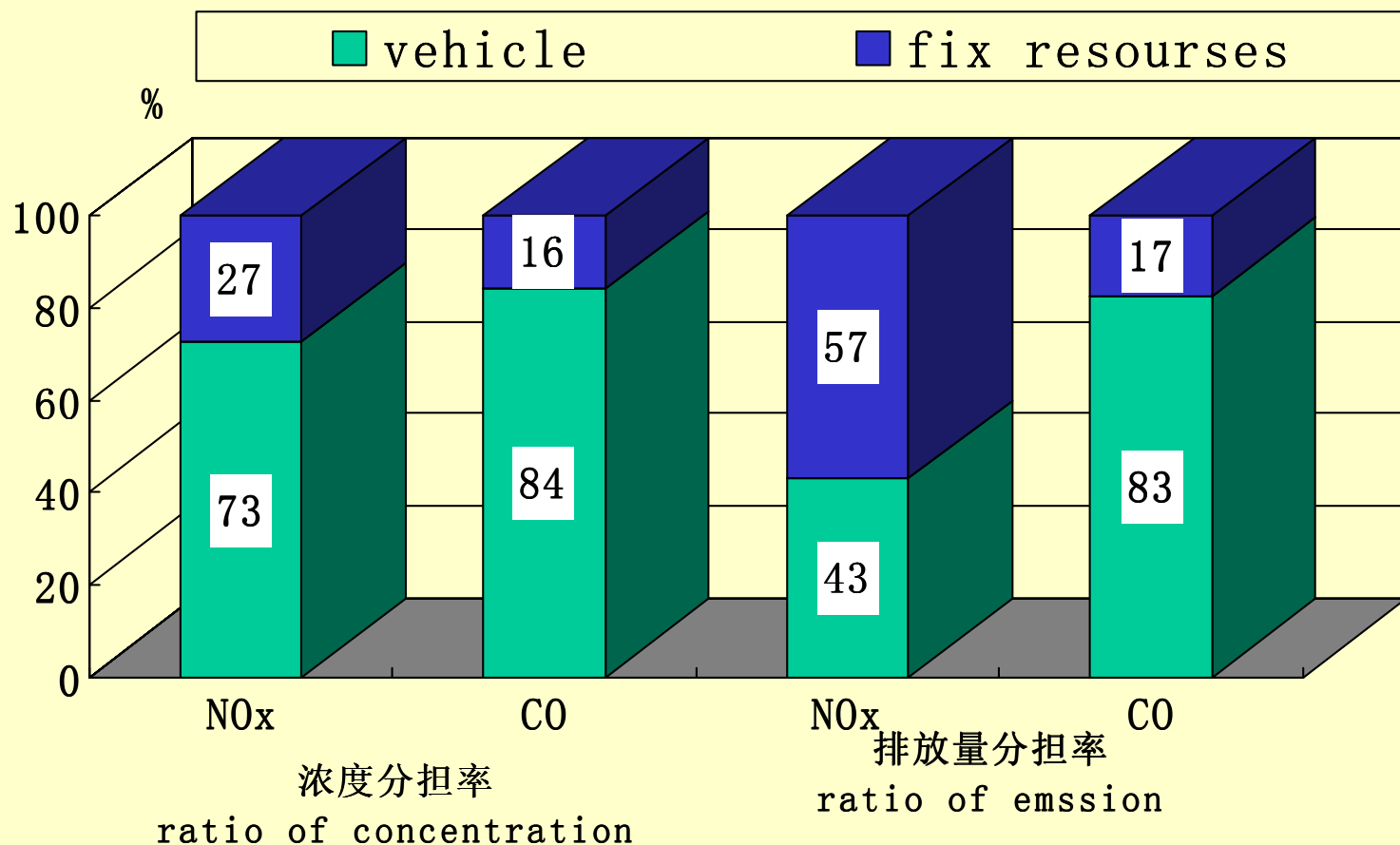


■ days of over standard

■ hours of over standard

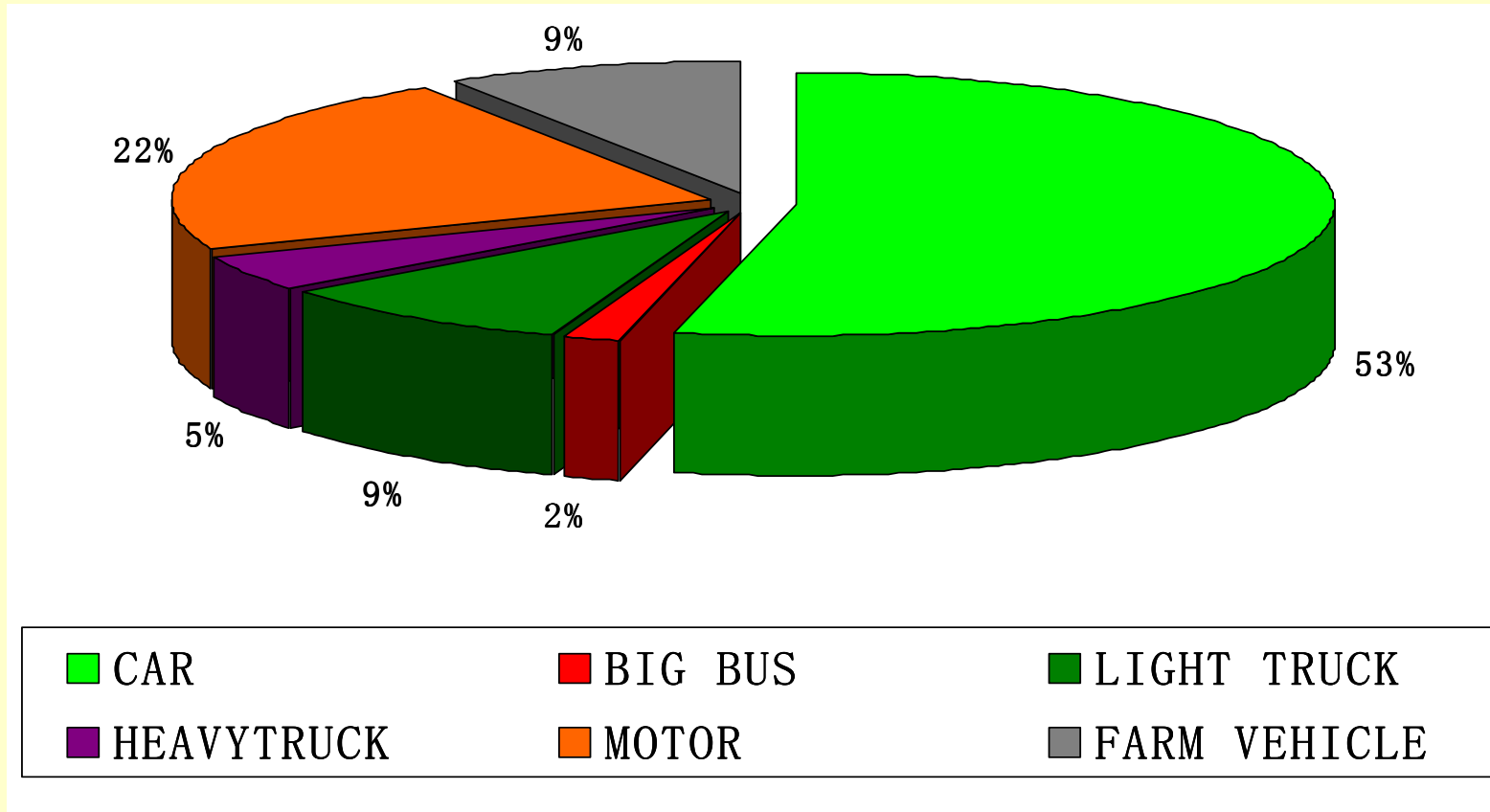
机动车排污对环境的分担率图

contribution ratio of vehicles emission



2000年北京市机动车保有量

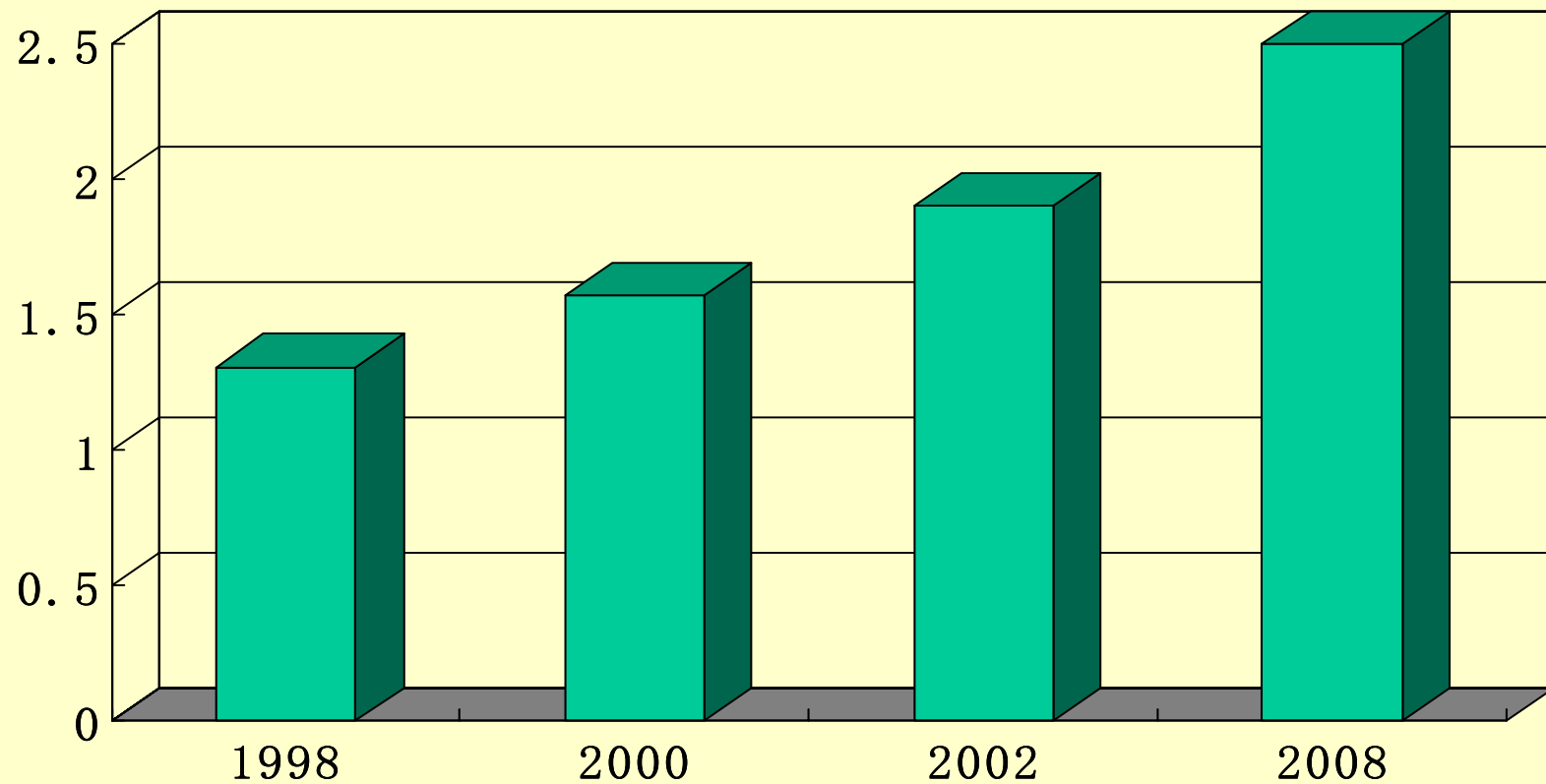
The compose of Beijing vehicles 1.50million on 2000



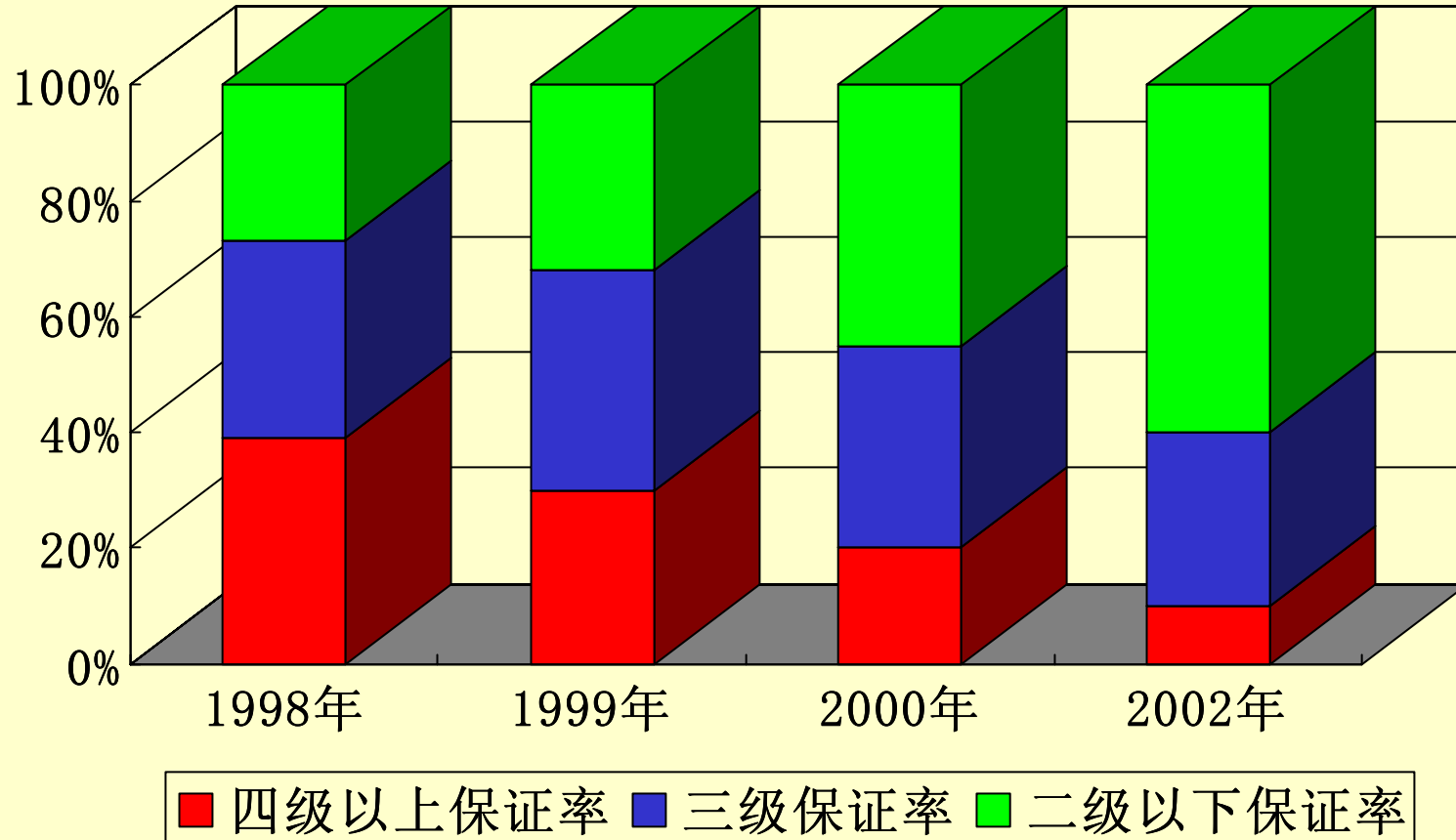
北京市机动车保有量预测

Prediction of Beijing's vehicles

millions

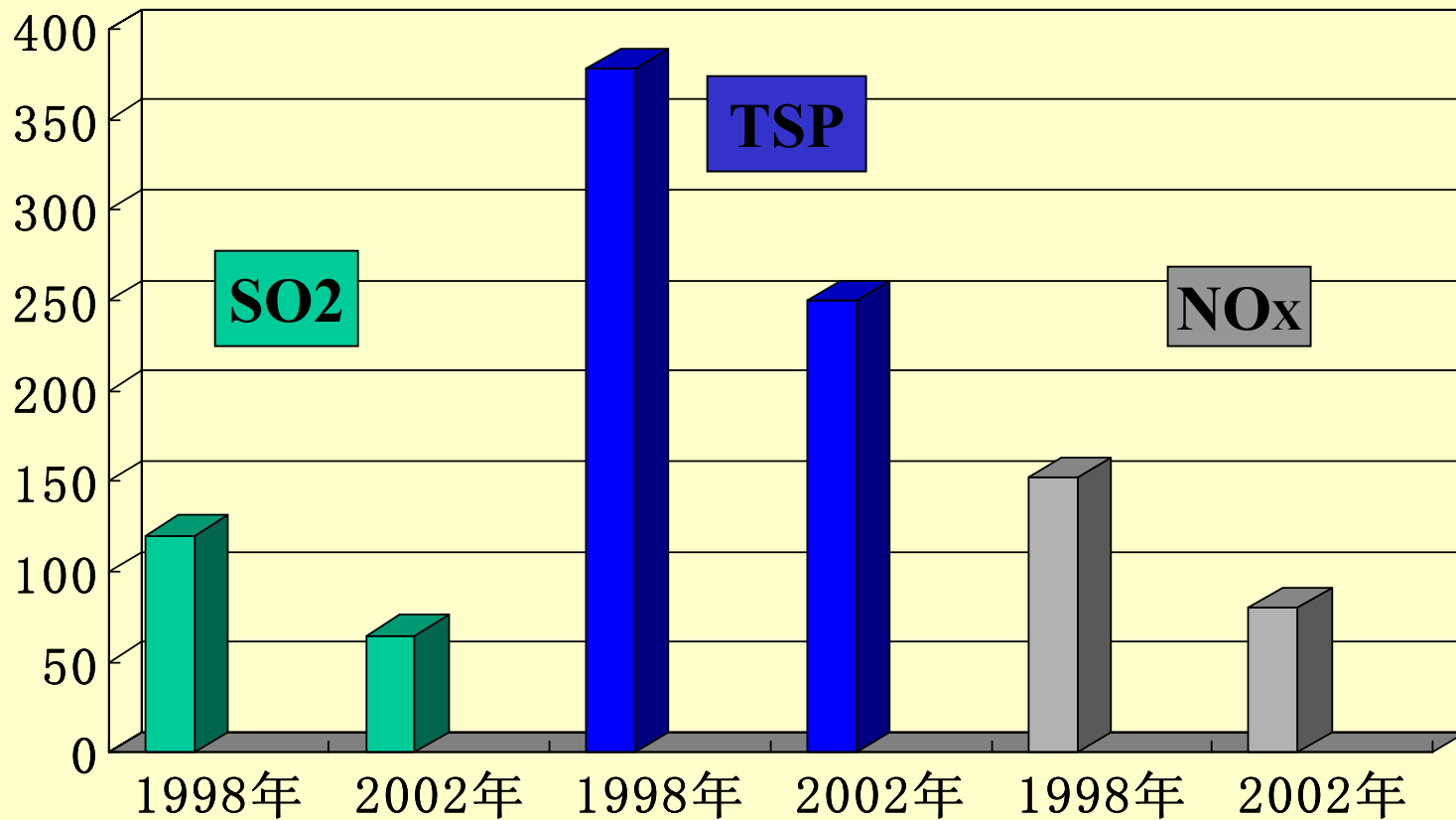


北京市区空气质量目标 the air quality goal of Beijing downtown



北京市环境质量目标

the goal of air quality of Beijing



北京市大气污染防治的重点

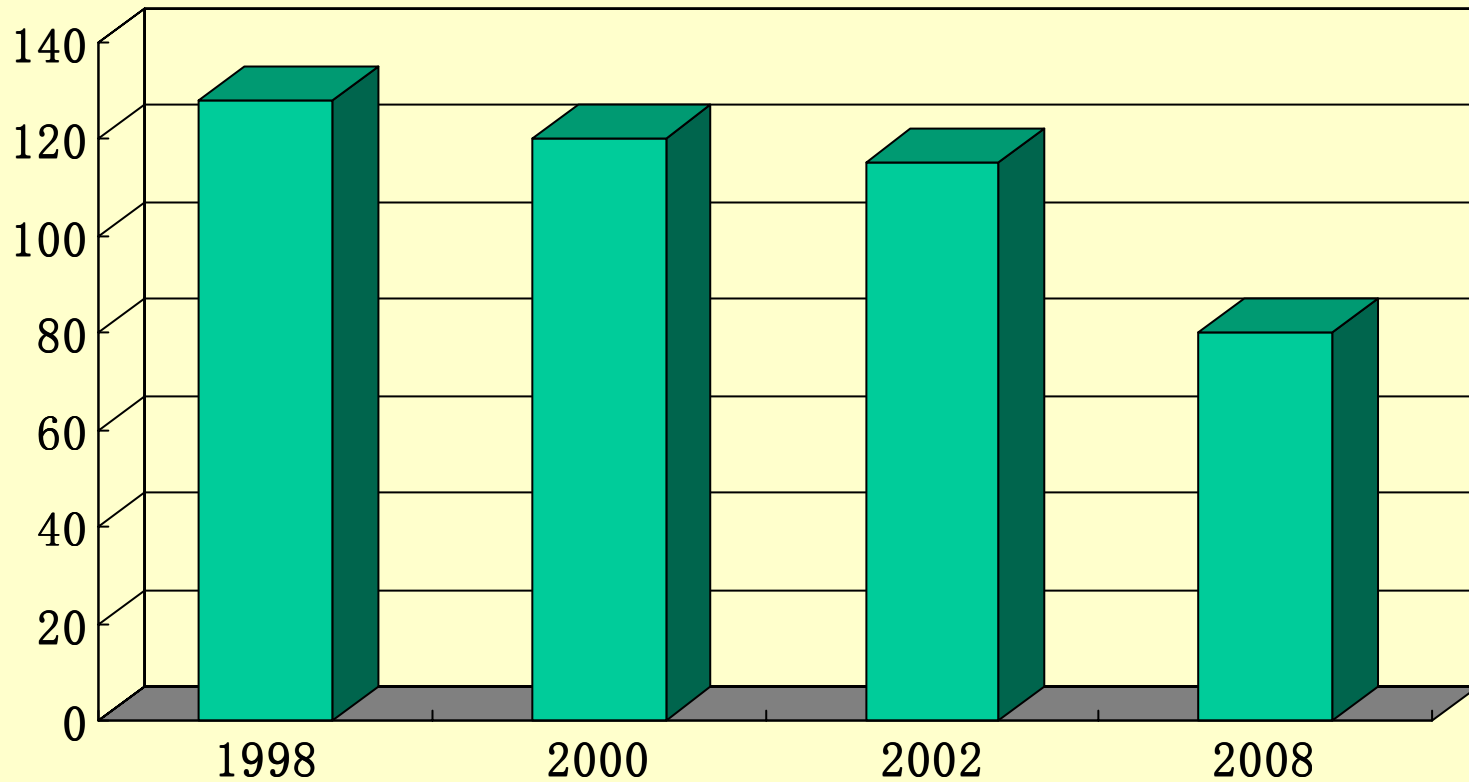
the key points anti-air pollutant of Beijing

- 改善能源结构，控制煤烟型污染。
- Change energy construction and control coal pollutant
- 防治机动车污染。
- Prevention and control of vehicle emission
- 减少扬尘污染。
- Reduce dust pollutant
- 控制工业污染。
- Control industry pollutant

机动车排放CO总量变化情况

CO of vary circumstances of Beijing' vehicles

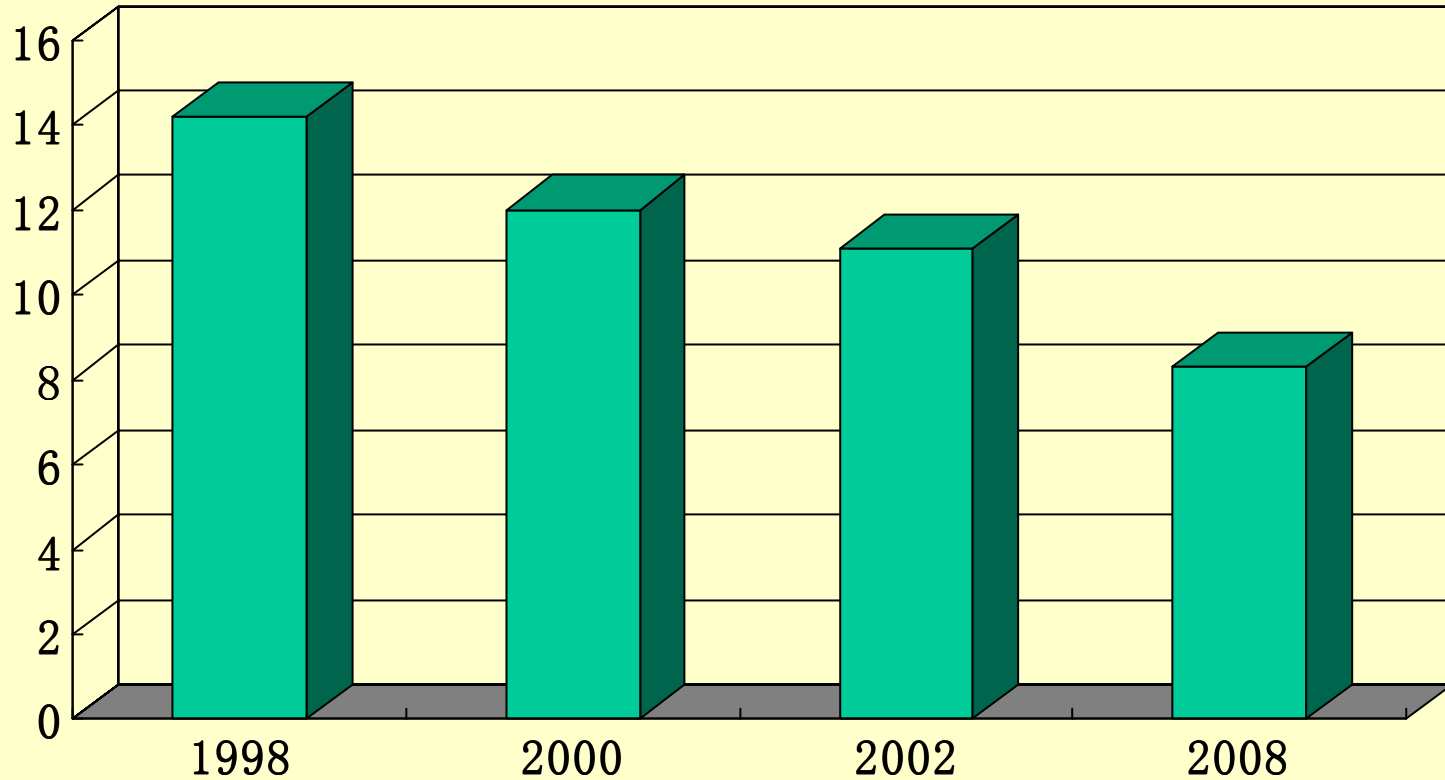
单位：万吨/10000ton



机动车排放NO_x总量年变化情况

NO_x of vary circumstances of Beijing' vehicles

单位：万吨



机动车排放污染的治理

the manegement of vehicle emission

- 完善标准体系，逐步执行严格标准，
- Set up local standards and regulations
- 新车排放控制
- new vehicles emission control
- 在用车排放管理
- administration of vehicles in-use
- 关于车辆环保标志的管理
- administration of emviremental protection marks of vehicles

完善标准体系，逐步执行严格标准，
Set up local standards and
regulations

北京市颁布实施的11项标准如下

11 local standards of vehicle emission

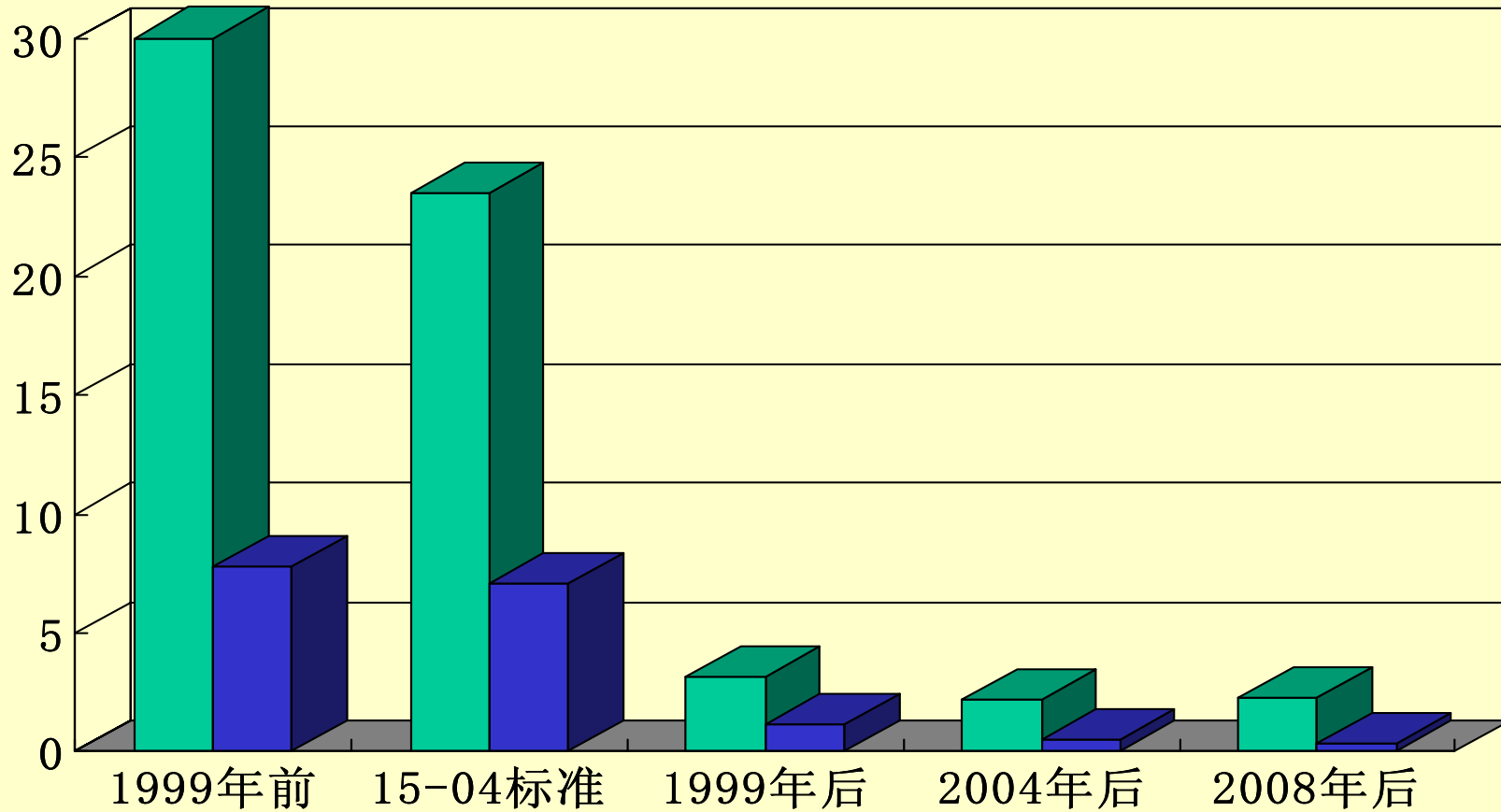
- 《轻型汽车排放污染物标准》
- Emission standard for exhaust pollutants from light-duty vehicles
- 《重型汽油机排放标准》
- Emission standard for exhaust pollutants from gasoline engines of vehicles
- 《重型柴油机排放标准》
- Emission standard for exhaust pollutants from diesel engines of vehicles
- 《汽油车双怠速污染物排放标准》
- Emission standard for pollutants at double idle speed from vehicle with petrol engine

- 《柴油车自由加速排放标准》
- Emission standard for smoke at free acceleration from vehicles with diesel engines
- 《农用车及运输拖拉机排放标准》
- Emission standard for smoke at free acceleration from farm vehicles and tracker with diesel engines
- 《摩托车、轻便摩托车污染物排放标准》
- Emission standard for exhaust emissions from motorcycles and mopeds
- 《轻型汽油车简易瞬态工况污染物排放标准》
- Emission standard for exhaust pollutants from light-duty gasoline vehicle under short transient driving cycle

- 《汽油车稳态加载污染物排放标准》
- Emission standard for exhaust pollutants from gasoline vehicle under steady-state loaded mode
- 《柴油车加载减速烟度排放标准》
- Exhaust smoke standard for diesel vehicle under lug-down test
- 《柴油机全负荷烟度标准》
- Emission standard for smoke at full load from diesel engine of vehicle

北京市机动车排放标准变化

the change of vehicle emission standard



新车排放控制

new vehicles emission control

新车排放控制

new vehicles emission control

- Set up qualified vehicles catalogue in 1998
- the manufacture who sale vehicles have to apply to Beijing EPB with test reports
- the test reports must deliver by laboratory identified by CPA or Beijing EPB
- the engine and emission control system of vehicles saled on market have to consistent with tested one
- signs and marking numbers of key parts(catalist injector turbo charger should be inspected easily₂₁

北京环保局对新车排放的检查

Beijing EPB inspection

- Visual inspection: identified key parts
- spot check the vehicles with test
- have problems stop the right of selling vehicle on market

对在用车的排放控制

administration of vehicles in-use

关于在用车的定期检测

Inspection vehicles in-use at regular interval

- Once a year for vehicles at Eour1
- twice a year for others
- double idle speed test
- free acceleration test
- twice a year the vehicles in-use for more than 10 years and taxt cars over 5 years
- asm test

关于路检

Inspection vehicles in-use at roadside

- Set up 20 teams at 1999
- each team contains 5-6 personals include 2 policemen
- working procedure:
- policemen stop vehicles
- test
- detain drive licensee and remove number plate

对外阜车辆的检测

Inspecting of nonlocal vehicles

- 1999年起设立了14个进京检测站
- Set up 14 pass inspecting stations at 1999
- 两年共检测机动车50万辆
- test 500000 vehicles
- 13.4万辆被劝返
- 13.4000 vehicles over standards asked to return

关于车辆的维护修理

Maintenance of vehicles

- 全市共有五千多家修理厂
- Over 5000 repair workshops in Beijing
- 两千多家为一二类修理厂
- 2100 workshops qualified by BCB and EPB(274 grade 1 ,1826 grade 2 workshops identified by Beijing Communication Bureau)

在用车改造

Retrofitting vehicles in-use

- 1999-2000改造18.8万辆化油器车
- 188000 cars were retrofitted
- 3万辆使用液化气
- 30000 vehicles use LPG OR CNG
- 1300公交车使用天然气
- 1300 big buses use CNG

关于机动车报废

Vehicles retirement

- 1998年报废3.8万辆
- 38000 at 1998
- 1999年报废2万辆
- 20000 at 1999
- 2000年 报废2万辆
- 20000 at 2000

面临的问题

Face problems

- 燃油质量问题
- Fuel quality
- 柴油车控制问题
- control diesel vehicles

燃油质量问题

Fuel quality

- 汽油问题:
- Gasoline
- 柴油问题
- diesel

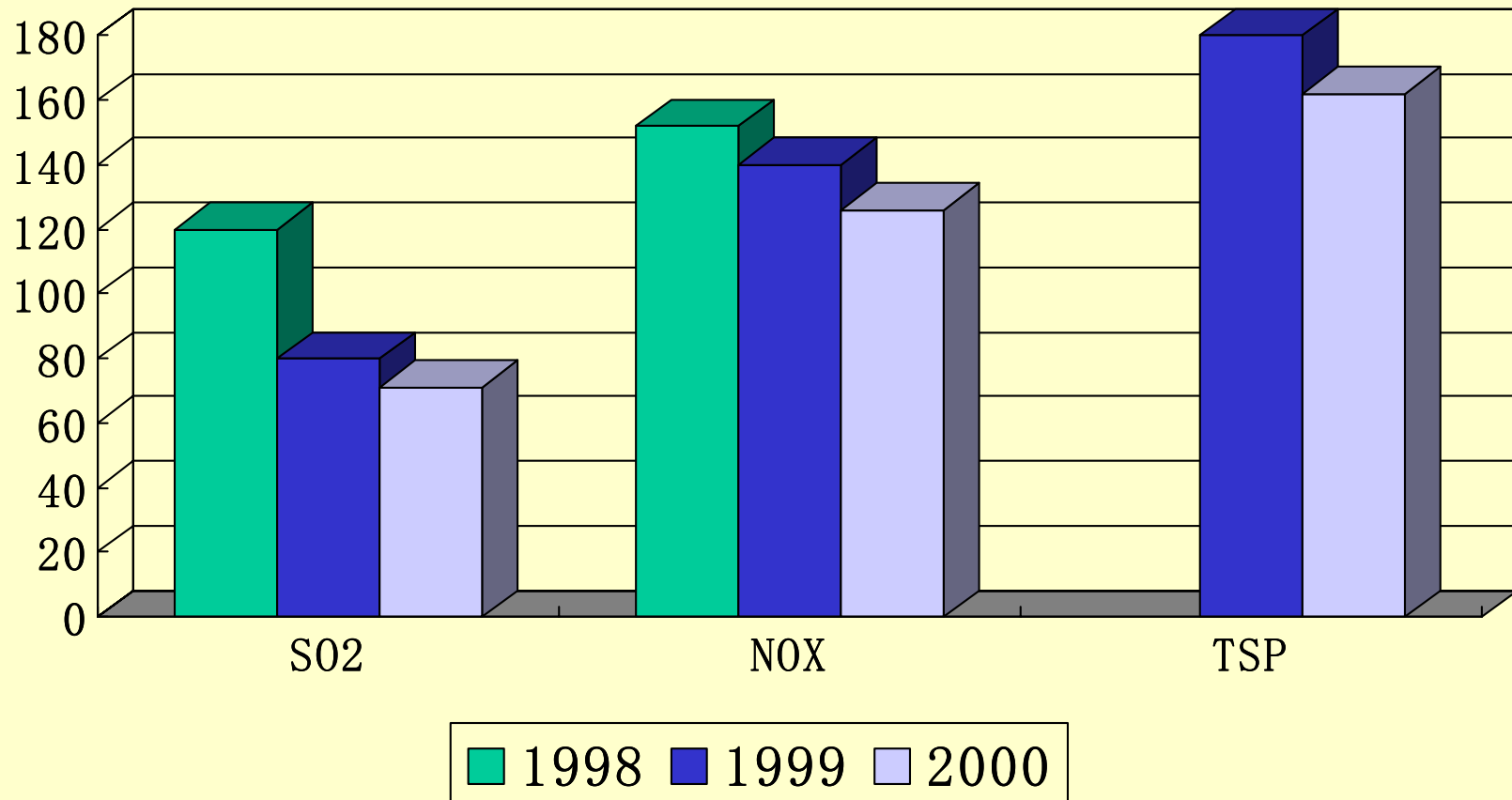
柴油车控制政策

control diesel vehicles

- 柴油车辆优缺点突出。
- Strong points in power and economic
- 鼓励生产使用低排放的车辆（欧3以上）。
- Diesel vehicles (above eour 3)can use in downtown area
- 在城市中心地区，对只能达到欧洲2号以下标准的柴油车辆实行总量控制，以旧换新。
- Total quantities control policy on Diesel vehicles (eour 1or 2)

污染物浓度变化情况

change of pollutant concentration



污染指数变化情况 pollutant index

