

Created with Citizens and Evolving with Citizen Participation

Seoul's Air Quality Control Policies

I • SEÒUL • U



I. Seoul in the World



Do You Know SEOUL?



World



South KOREA

Land area 99,720 km²

109th largest in the world



**UN
e-gov**

Ranked No.1
for three consecutive years
(2011-2014)

Export

8th largest
in the world
(2016)

**ICT
Devl. index**

Ranked No.1
in the world
(2016)

GDP

11th largest
in the world
(2016)

Korea in the World



BTS



1988 Seoul Olympics



K-POP



2002 World Cup



PSY



2018 Pyeongchang Winter Olympics

Korean culture
around the world
K-POP

World-class international events
Olympics / World Cup

Seoul, capital of Korea



6th

Global City
Competitiveness Index

(2012-2014)

* Source: Mori Memorial
Foundation, Japan



7th

World's top tourist cities

(2017)

* Source: Master Card



12.39 mil.

No. of tourists to Seoul

(2017)

* Source: Master Card

II. Concerns of Seoul



Seoul, Mt. Namsan


“Attack of Particle Pollution”
blankets sky and threatens life

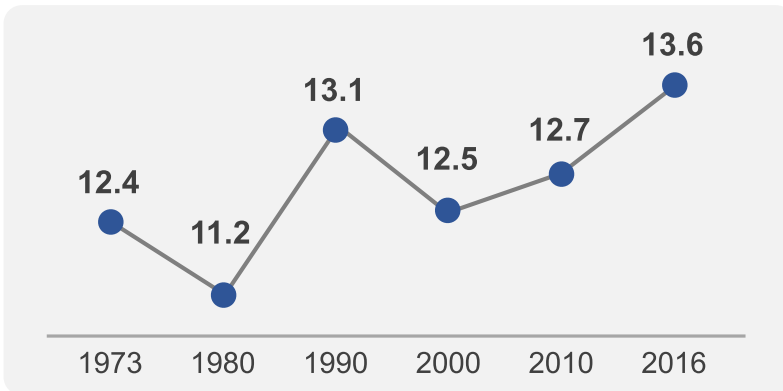
Nov. 19, 2017

Nov. 20, 2017

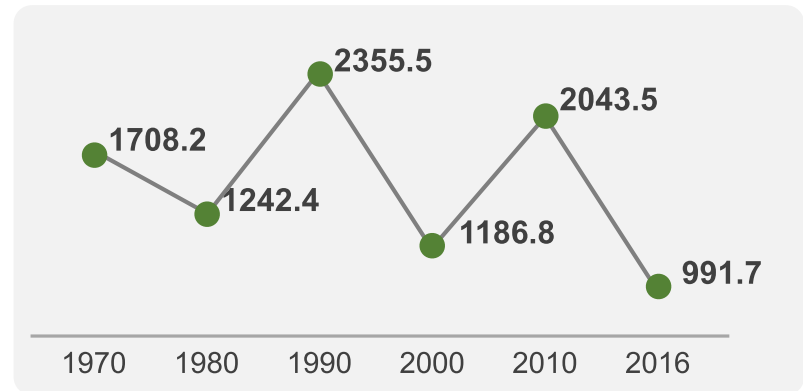
WHAT CAUSES PARTICLE POLLUTION(PM)?

Impact of Climate Change

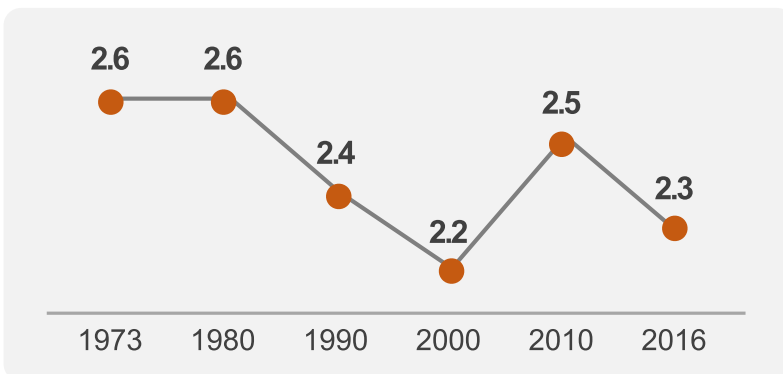
 Increase in Temperature
(unit : °C)



 Decrease in Precipitation
(unit : mm)

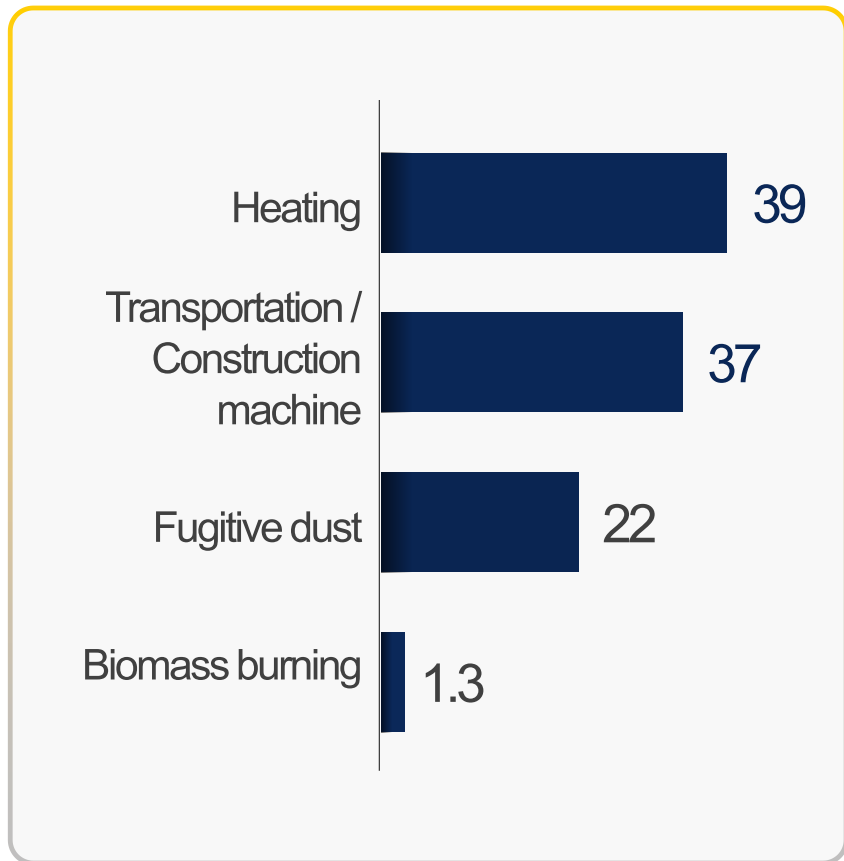


 Decrease in Wind Velocity
(unit : m/s)



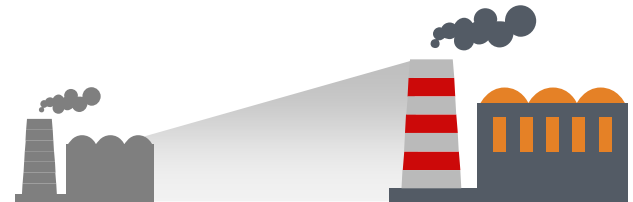
WHAT CAUSES PARTICLE POLLUTION(PM)?

Contribution by Sources



Uncoordinated gov policies

Increased construction of coal power plants



53 (2015)

65 (including those under construction in 2017)

Increase in the number of diesel cars in Seoul Metropolitan Area



340,000 (Jul 2016)

410,000 (Jan 2017)

The image features a city skyline at sunset, with a dark blue banner overlaying the top half. The banner contains the text "III. Seoul's PM Measures Created with Citizens" in white, bold, sans-serif font. The skyline includes several skyscrapers, with the Lotte World Tower being the most prominent on the right. The sky is a mix of blue and orange, with some clouds. The foreground shows some green trees.

III. Seoul's PM Measures Created with Citizens

Seoul citizens take the lead in tackling particle pollution



Public Debate

Gwanghwamun Square in central Seoul

May 27, 2017



3

3,000 citizens
3,000 ideas

Citizens find solutions by themselves

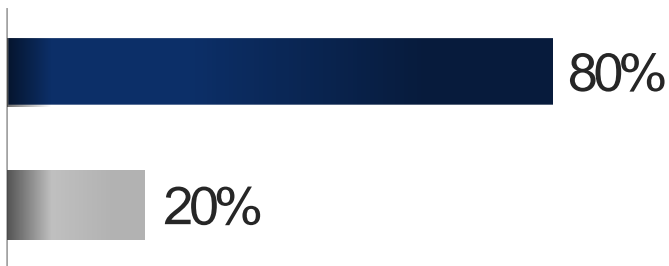


CITIZENS' POLICY PRIORITIES

■ For ■ Against

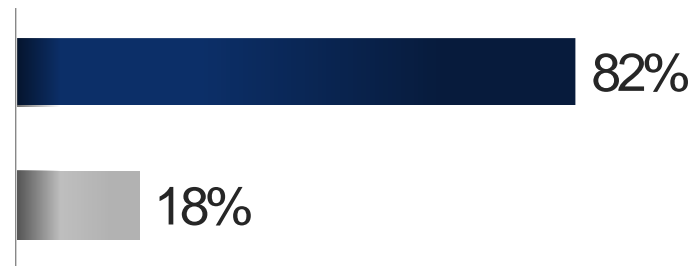
Odd-even restriction on days with high PM levels

(1,867 respondents, %)



Polluted vehicle restrictions inside four ancient gates in city center

(1,867 respondents, %)



Temporary shutdown of coal power plants in Spring

(1,867 respondents, %)



Environmental values put before citizen convenience

(1,867 respondents, %)



CITIZENS' VOICES



“ Environmental problems should be considered as a disaster ”

Park, undergraduate in 20s



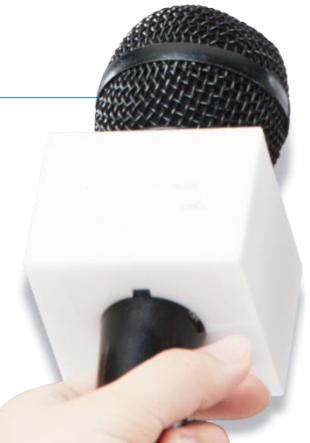
“ It is better to adopt the odd-even restriction system on a day with high PM levels ”

Shim, private business owner in 30s



“ Let's not blame others ”

Yoo, elementary school student





‘Promise with Seoul Citizens’
Ten measures
for clean air in Seoul

01

CLASSIFICATION OF PM AS DISASTER



- ✓ 'PM' was classified as 'natural disaster' under a Seoul Ordinance
-



- ✓ PM masks Supplyment (2017)
 - 300 masks to 1.05M people / KRW 2.2B
-



- ✓ Air purifiers Supplyment (2017)
 - 14,270 units to 6,806 sites / KRW 2.9B

02

PM-2.5 ADVISORY FOR SENSITIVE GROUPS



✓ Conditions for issuance

- When PM levels are over

75 $\mu\text{g}/\text{m}^3$ for two hours

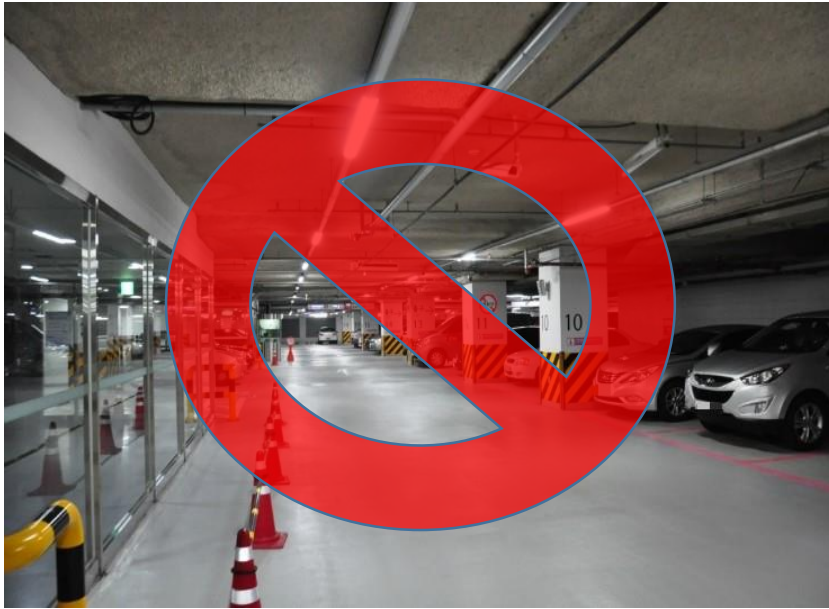
· Normal alarm condition : **90 $\mu\text{g}/\text{m}^3$**

✓ Protection targets

- **Six PM-sensitive groups**

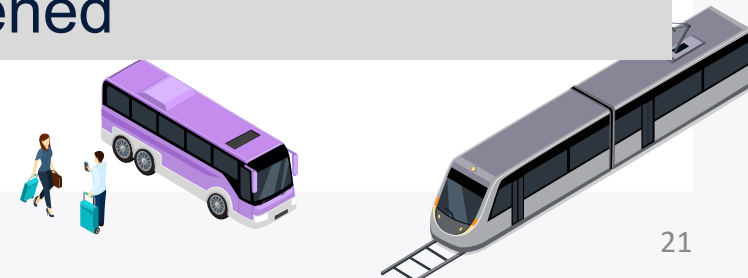
· Infants/toddlers, children, senior citizens, pregnant women, people with respiratory diseases etc.

03 SEOUL'S EMERGENCY REDUCTION MEASURES



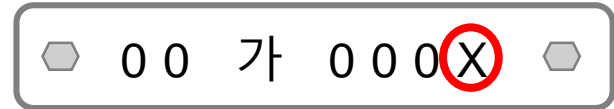
Closure of parking lots in public agencies

High air pollution emissions and construction sites are shortened



04

VOLUNTARY ROAD SPACE RATIONING (ALTERNATE-DAY DRIVING BY ODD-EVEN NUMBERS)



- ❖ Odd # : Use odd days
- ❖ Even # : Use even days

Forming social consensus via citizen-led campaigns (2018 -)



Providing mileage incentives for cars joining the ban in Seoul

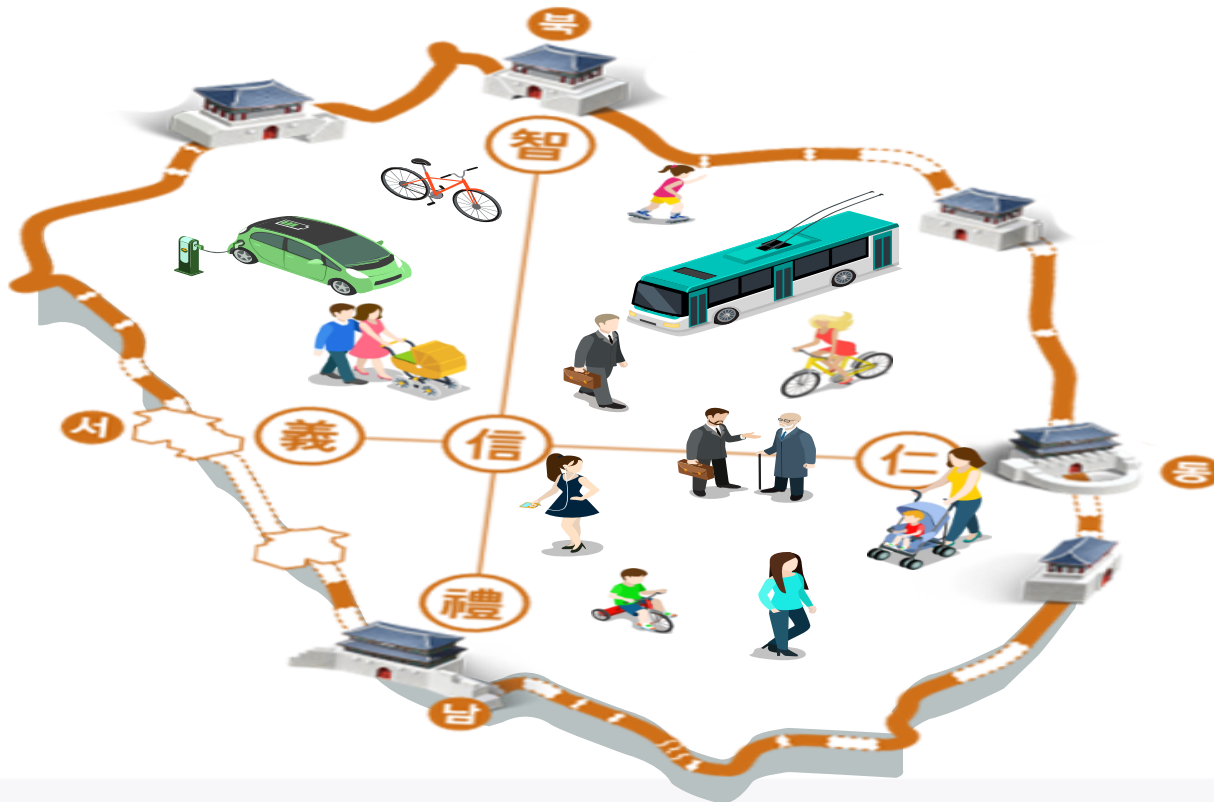


Making odd-even restriction mandatory

05-1 POLLUTED VEHICLE RESTRICTION IN LEZ

Limiting cars with low eco rates from entering the Low Emissions Zone(LEZ)

- ✓ Area: (Phase 1) LEZ → (Phase 2) Expansion to the entire Seoul
- ✓ Target: Cars with Grades 5-6 (Diesel cars manufactured before 2009)



05-2 CAR LABELING /SCORING SCHEME



(Grade 0-1) Low-pollution vehicles



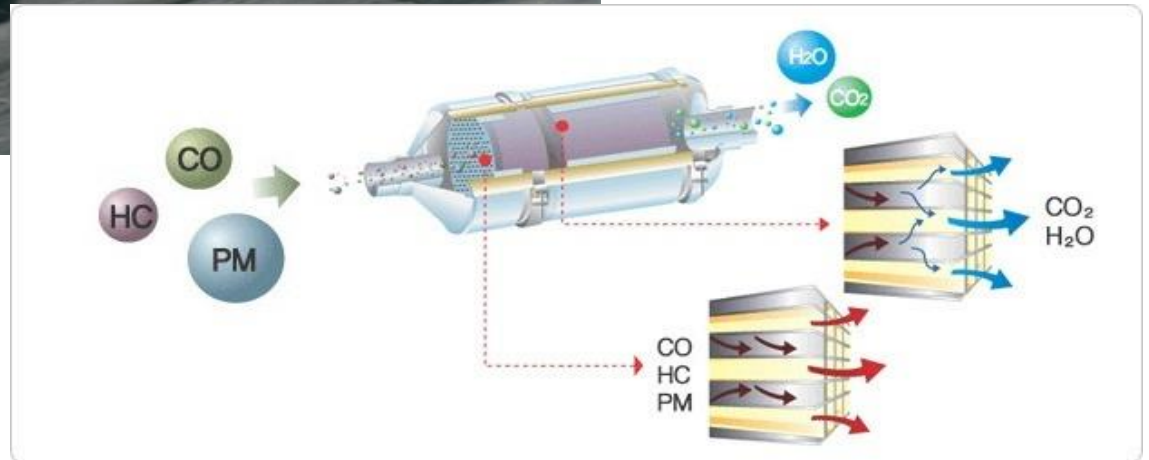
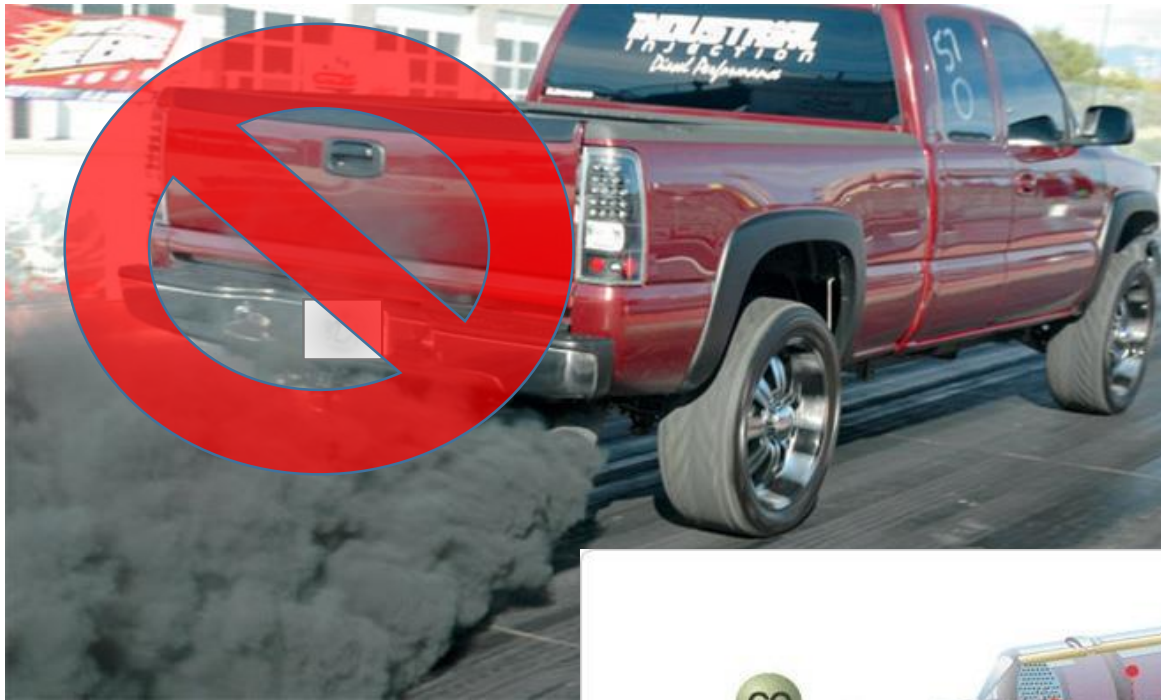
(Grade 5)
Euro4



(Grade 6)
Euro3

-
- ✓ Ranked from Grade 0 to 6 according to emissions levels
 - ✓ Regulating and policing cars with low grades
 - ✓ parking fee discounts and congestion charge exemptions

05-3 DIRTY DIESEL VEHICLE RETROFITTING



06 DIRTY CONSTRUCTION MACHINE RETROFITTING

Dirty construction machine retroffiting

Mandatory use of eco-friendly construction machines



Construction machine
12%

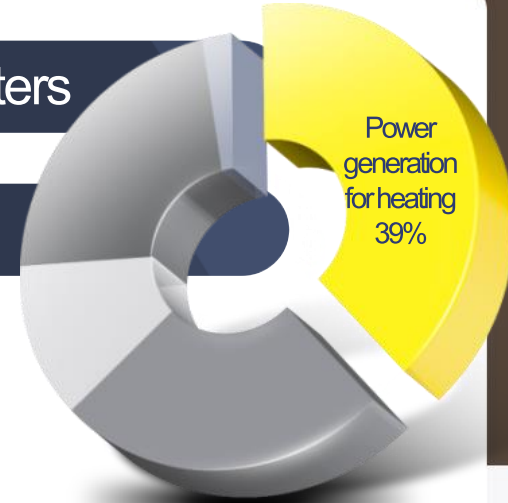


07

PROMOTION OF LOW-NOX BOILERS & BURNERS

Legislation on mandatory installation of eco-friendly heaters

Supply of eco-friendly boilers and Low-NOx burners



08

FOSTERING R&D ON AIR QUALITY CONTROL

Expanding R&D support for clean air



(2017) KRW 2B



(2018) KRW 4.2B

More research to improve air quality

- ✓ Analysis of the ozone generation mechanism in Seoul (2018)
- ✓ Seeking ways for mandatory installation of eco-friendly boilers (2018)



09

ENVIRONMENTAL DIPLOMACY WITH NORTHEAST ASIAN CITIES

Seoul-Beijing Joint Committee for joint efforts for clean air



8th Annual Northeast Asia Forum on Air Quality Improvement

East Asia Clean Air Cities (ECAC)

09

ENVIRONMENTAL DIPLOMACY WITH NORTHEAST ASIAN CITIES

SUPPORTING AFFORESTATION PROJECT IN MONGOLIA TO COMBAT DESERTIFICATION



Creation of Reservoir



Creation of Fences

- ✓ Have supported afforestation project in Tuv Aimag Jargalant Sum region since 2016
- ✓ Have planted appx. 600,000 seedlings in the area of 30ha(~ 2018)
- ✓ Working together with locals in tree caring
- ✓ Plans to expand the area of trees to 100ha



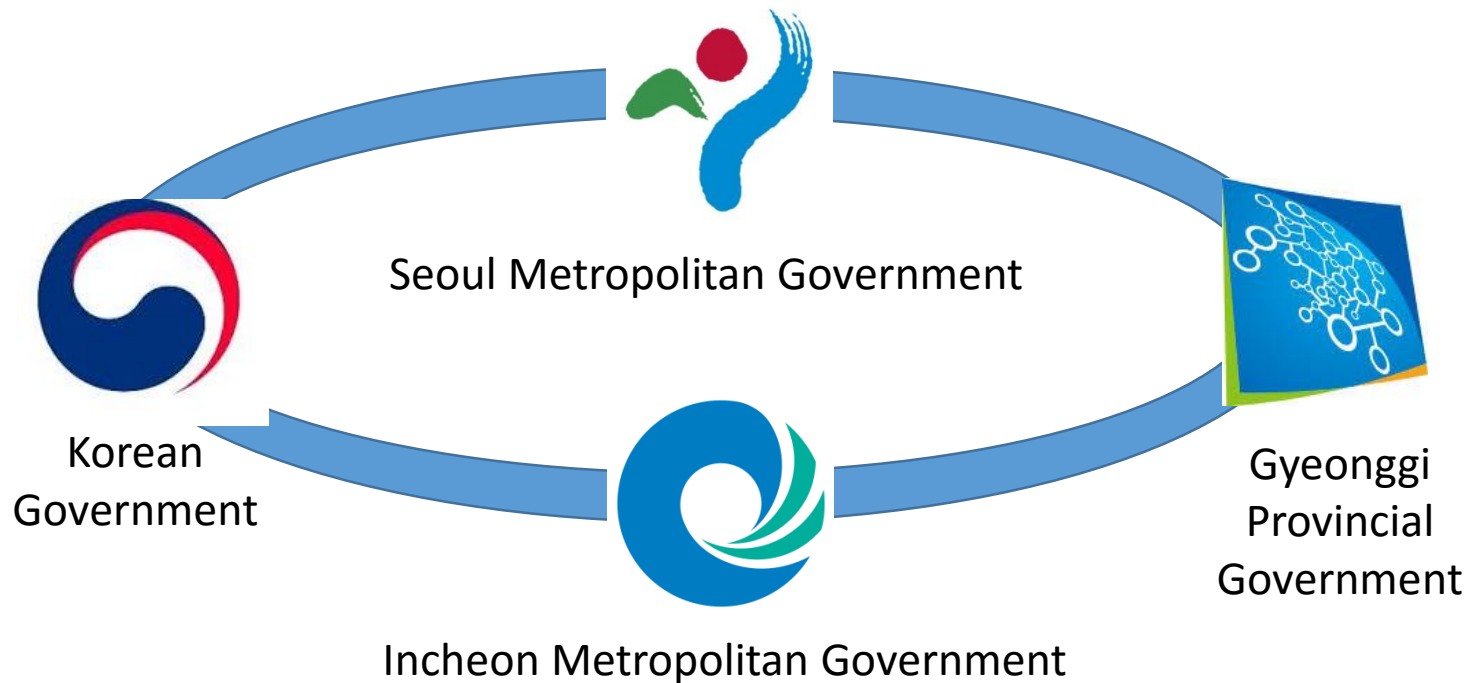
10

STATE AND LOCAL GOVERNMENT COOPERATION

Cooperation for effective enforcement of PM2.5 emergency reduction measures



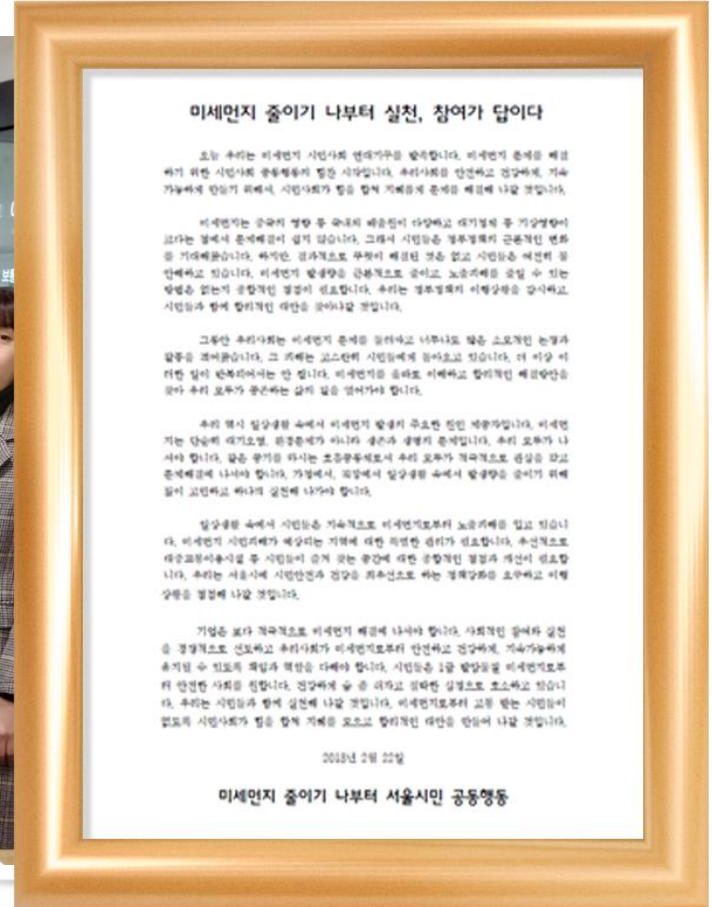
Request for delegation of more environmental authority to local governments



The background of the slide is a photograph of a city skyline at sunset. The sky is a mix of deep blue and orange, with wispy clouds. In the foreground, there are green trees. The city buildings are silhouetted against the sunset. A dark blue rounded rectangle is overlaid on the middle of the image, containing the text in white.

IV. Citizen-led Air Quality Control Measures

“ME-FIRST” CAMPAIGN TO REDUCE PM



Solidarity of 32 civil groups(Feb 22, 2018)

“ME-FIRST” CAMPAIGN TO REDUCE PM

“Halve PM, Double Citizens’ Health” / PM **Victims = Offenders**

State

Urged the state government to swiftly adopt odd-even ban

Seoul

Urged the SMG to take measures to protect the health of citizens

Citizens

Committed to take action to reduce PM levels in daily life

Businesses

Urged companies to play their role to cut particle pollution





Seoul fights back against Particle pollution!

Together with citizens,
Seoul will tackle air pollution

Thank You

