

Measures to introduce wind paths in cities for fine dust reduction

Sung Sun-yong, Associate Research Fellow Park Jong-soon, Associate Research Fellow Lee Sang-eun, Head of Water Resources Research Center Kim Sun-hee, Chief of Environment & Resources Research Division

1> More people are increasingly feeling uncomfortable due to fine dust. The government recently enforced emergency fine dust reduction measures in the metropolitan area for 7 consecutive days. Hence, there is a need to provide comprehensive measures such as using wind paths in cities

2> For instance, Germany, Hong Kong, and Europe include measures to utilize wind paths in their national territory and urban planning in order to reduce fine dust and improve air quality

3> Wind paths provide many benefits: ① They bring fresh and cold external air within cities, ② circulate fine dust in cities promptly, and ③ absorb and reduce fine dust by installing green infrastructure within cities

4> Hence, there is a need to introduce the concept of wind paths by linking national territory plan with environmental planning and implement each project stage for actual allocation of such paths

5> Still, institutional frameworks for the adoption of wind paths promoting the circulation and expansion of clean air are insufficient. Systematic and detailed measures for the introduction of wind paths within cities are necessary



## Policy proposals

① To introduce wind paths for fine dust reduction, we need to develop weather maps and air pollution maps to improve eco-friendliness of national territory and urban planning and use them in establishing land use plan and spatial unit plans

② For environmental planning, specify areas to be managed to preserve cold air, spatial scope of wind paths, etc. so that such measures can be applied to the land use

③ Securing consistency between land territory and environmental planning is urgently needed by each stage of investigation, planning, and evaluation by linking national territory plan with environmental planning in order to secure wind paths