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URBAN AIR POLLUTION AND ITS COUNTERMEASURES IN HEBEI, CHINA

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From the end of the 20th century to the beginning of the 21st century, China has entered the process of large-scale urbanization and industrialization, accompanied by this process, environmental pollution problems also appeared, among which the air pollution problem in Hebei province is particularly serious. This paper analyzes the causes of urban air pollution in Hebei province, expounds the harm of air pollution, and Take measures to control air pollution in Hebei province based on the experience of other areas.

Key words: air pollution control, Hebei province, industrialization.

Hebei province is the most serious pollution provinces in China, Air pollution there is even serious. In the air quality ranking list of 74 major cities in China, most of the 10 cities with the worst air pollution are in Hebei province. The study of air pollution in Hebei province is of typical significance for understanding air pollution in China [1].

The purpose of this study is to provide the methods to improve the air quality of Hebei province by analyzing the causes of pollution in Hebei province and drawing on the good experience of other regions.

Analysis of reason of air pollution. The air pollution in Hebei province is mainly soot pollution caused by coal for industry and heating. The main reasons are as follows:

Industrial structure overly dependent on steel industry and other heavy industries. The industrial structure of Hebei province is a heavy chemical industry system dominated by the secondary industry and led by the steel industry. There are 110 iron and steel production enterprises and 348 blast furnaces in the province, with an annual capacity of 269 million tons of iron. There are 305 bessaries and electric furnaces, with an annual capacity of 261 million tons.

Natural factors make the Beijing-Tianjin-Hebei region easy to accumulate pollutants. In terms of topography, yanshan Mountain in the north and Taihang Mountain in the west encircle the area. The terrain is high in the northwest and low in the southeast, making it easy for pollutants to gather. The prevailing southeasterly wind in summer diffused the pollutants in tangshan, Langfang and other places to the whole region, and locked the pollutants in the Yanshan-Taihang Mountain range. Therefore, the interaction between topographic and climatic conditions is an important reason for the difficult diffusion of pollutants in this area.

Countermeasures against air pollution. In order to improve the environment, We can learn from Beijing's experience in air improvement. Beijing adheres to the strategy of clean energy, vigorously promotes the reduction of coal burning in industry and daily life, and strives to build a clean energy system dominated by electricity and natural gas, supplemented by geothermal energy and solar energy. Through the adjustment of energy structure, Beijing's air quality and air pollutant emissions have been significantly reduced.

Drawing on the successful experience of Beijing, Hebei should adopt the following measures to achieve the goal of achieving the emission of air pollutants from the standard to ultra-low emission and then to the overall ultra-low emission.

First of all, in the construction of urban industrialization, the use of advanced industrial technology, can effectively control the emission of industrial waste gas, reduce the pollution of waste gas to the environment. While continuing efforts to desulphurize, sell off coal and remove dust from key industrial enterprises and pollution sources, we will also introduce these measures into non-key areas so as to reduce overall emissions and intensity of air pollutants. Secondly, the emission standards of air pollutants in different industries will be improved so that all industrial sectors will comply with the emission standards, non-industrial production sectors will gradually comply with the emission standards, and key industrial enterprises will implement ultra-low emission of air pollutants.

Second, the implementation of regional collaborative governance in Hebei Province. Because air pollution can flow and spread, only coordinated governance, to achieve effective prevention and control. In implementing coordinated regional prevention and control, we should not only fully respect each region's right to development, but also respect each region's contribution to air pollution prevention and control. We can set up air pollution prevention and control organizations in prefecture-level cities to eliminate the estrangement between various departments, and set up multi-department consultation mechanism to realize multi-department collaborative governance, and bring the contribution of departments to air pollution prevention and control into the assessment system of urban development.

Hebei province, due to the serious emission of industrial exhaust gas, lead to a serious decline in ambient air quality, to people's health posed a threat. If you want to improve our air quality, we should start from now, reduce industrial gases emissions, development of more advanced technology to promote improvement of environmental air quality achieve the better effect of environmental air quality control.

BIBLIOGRAPHY

1. *Jia Shibin, Yin Chengyuan.* Green Finance Countermeasures of Air Pollution Control in Hebei Province from the perspective of Industrial Structure Adjustment, Hebei Finance, October, 2020

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SECTION 3

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