Places of bad environment and data

Abstract:

This literature review provides an overview of studies and research conducted on places with poor environmental conditions. It explores various aspects related to the adverse environmental conditions in different locations, including industrial zones, and regions affected by natural disasters. Taking examine sulfur dioxide (SO₂) and methane pollution as examples.

China has cheap labor, which makes many countries invest in China. While the economy has been developed, the environment has been polluted. In the past 25 years, China has been accompanied by obvious environmental problems. For every 1% increase in FDI, the emission of SO2 increases by 0.98%, which shows that the emission of SO2 in industrial zones is much higher than that in townships [1] . In Portugal, Oporto-MA is the region with the highest industrial consumption of electricity, Portugal has observed an industrial area (Custoias), two cities (Paranhos and Boavista), and a rural area (Vila Nova da Telha) [2]. The two urban monitoring sites are close to the entrance of the highway, where the source of SO2 is traffic emissions, and the industrial monitoring site detected twice as much SO2 emissions as the rural monitoring site. Therefore, industry and transportation are the main sources of SO2.

The significant methane emissions from cows make cattle farms a substantial source of air pollution. Methane, as a potent greenhouse gas, has a much higher warming potential compared to carbon dioxide. Its release into the atmosphere contributes to the intensification of global warming and climate change.

About 14% of the world's greenhouse gases come from agriculture, with the largest amount being methane. About two-thirds of all methane emissions come from cows, which emit about 132 gallons of methane per day, equivalent to the amount emitted by a car in a day[3]. This comes from the fact that cows have four stomachs, which are filled with bacteria that aid digestion and produce methane during rumination. So cattle farms are also a major source of air pollution. Addressing methane emissions from cattle farms is crucial for mitigating environmental impacts. Various strategies have been proposed to reduce these emissions, including dietary modifications, such as incorporating feed additives or adjusting feed composition, to minimize methane production in the digestive process. Additionally, improvements in manure management and the adoption of anaerobic digestion systems can help capture and utilize methane as a renewable energy source, thereby reducing emissions and promoting sustainability in the agricultural sector.

In conclusion, when making environmental monitoring software, the scope of environmental pollution monitoring can be gradually expanded with the factory area, the transportation hub near the school and the ruminant farm as the center.

Reference

[1] He, J. (2006). Pollution haven hypothesis and environmental impacts of foreign direct investment: The case of industrial emission of sulfur dioxide (SO2) in Chinese provinces. Ecological Economics, 60(1), 228-245.

[2] Pereira, M. C., Santos, R. C., & Alvim-Ferraz, M. C. M. (2007). Air Quality Improvements Using European Environment Policies: A Case Study of SO2 in a Coastal Region in Portugal. Accepted 06 Apr 2006. Published online: 14 Feb 2007. Environmental Science & Technology, 41(4), 347-351.

[3] Johnson, K. A., & Johnson, D. E. (1995). Methane emissions from cattle. Journal of Animal Science, 73(8), 2483-2492.