

Combatting Air Pollution in Urban Areas

UNEA

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Topic A: Combatting Air Pollution in Urban Areas

Introduction to the topic

<u>Urban air pollution</u> mainly refers to the contamination of the air by harmful matter in cities. It presents a threat to human health and the environment. This issue has been and is one of the most important public health and environmental challenges of today's world, with air quality being considered a fundamental factor to take action in the 2030 Agenda for Sustainable Development (11.6). Rapidly growing urbanization, growth in the industries, and an increase in the use of gas-fueled vehicles have caused a decrease in air quality in most cities around the world. The issue affects millions of individuals daily, with <u>air pollution killing 13 people every minute worldwide</u> and leading to severe health conditions, environmental decay, and high economic costs in the long term. Facing this issue and combating air pollution in urban areas highly requires coordinated and agreed international efforts, new innovative policies, and planning for sustainability in urban areas.



Historical Background

Air pollution in urban areas appeared in the Industrial Revolution as an issue and has been rapidly growing in the last decades. A huge rise in urbanization and factories that were coal-powered during the 18th and 19th centuries created one of the first samples of what can be considered mass human-created pollution. Cities around the United States and Europe began to produce more waste from industries and factories, thus increasing not only air but also water pollution levels. Well into the 20th century, one of the most important events regarding the issue would take place, the Great Smog of London in the year 1952. Coal smoke (coming from coal being used industrially and as a domestic fuel to maintain heat in people's houses during the winter) combined with fog, filled the streets of London due to a lack of wind and high atmospheric pressure (pushing the warm air rising from chimneys and smokestacks straight back down to street level). As a result, the event, which only lasted five days, left an estimated number of at least 4000 casualties due mainly to respiratory illnesses that were only noticed months after the episode. This incident marked a turning point in the history of environmentalism.

The world took a first glance at the massive effects air pollution could have on human health, and later, in 1956, the British government passed the Clean Air Act, considered one of the first major milestones in the history of environmentalism. Years later, in the 1970s, car emissions began a new wave of urban pollution. In the United States, more specifically in Los Angeles, the city was well known for its smog. This led to the creation of the <u>U.S. Clean Air Act of 1970</u>, now spreading a more comprehensive view towards pollution and air quality laws around the world. After 1990, other major cities around the world, such as Beijing, Mexico City, Delhi, and many more, began to address this problem and implement air monitoring systems, strategies to reduce emissions, vehicle traffic control... Governments, little by little, began to take action in response to higher concerns for public health and additional international pressure. Nevertheless, the story does not end (otherwise, this topic would not be discussed in current times).



Current Situation

Today, urban air pollution affects over 90% of the world's urban population. The main sources for poor air quality in urban areas include industrial activities, waste burning, domestic fuel usage, vehicle emissions... Air pollution causes an estimated number of 7 million premature deaths yearly around the wold, as it affects the human health, provoking respiratory infections, heart diseases, strokes, and lung cancer. Low-income communities, children, and the elderly are the most affected by this problem, but urban air pollution does not limit itself to damaging human health. It also contributes to climate change as it increases levels of chemicals and particles such as black carbon or greenhouse gases that absorb sunlight and trap heat, warming the affected areas and disrupting agriculture, water resources, and overall life quality. Without major interventions, the negative effects of urban air pollution will worsen. This is specifically important for rapidly developing cities in Asia, Africa, and Latin America, but also for major great power countries like the U.S. or China. It is urgent that action is taken for the betterment of this situation.



National and International Actions

Country-level actions and International efforts have been taken to address this issue. On a country scale, we can see many examples of massive steps towards addressing this issue. For example, China, following many years of an extreme case of air pollution, implemented an Air Pollution Prevention and Control Action Plan in 2013 and the Blue Sky Protection Campaign in 2018. These action plans have led to a decrease of nearly 40% in PM2.5 levels in the country's major cities. India also released the National Clean Air Programme in 2019, which also seeks to increase the air quality in the country's major cities. On a bigger scale, the European Union implemented new clean air policies and EU Air Quality Standards that have already made a major impact in many of the Union's most important cities, such as London or Paris, making important investments in bike infrastructure, public transportation, low-emission zones... They are doing these changes in order to meet the very ambitious goal of the Zero Pollution Vision for 2050.

In a United Nations and International Context, the efforts are firm and clear. Quality air in urban areas is placed in the 2030 Agenda for Sustainable Development (11.6). The World Health Organization has a trustworthy database that covers over 7182 human settlements in more than 120 member states.

According to this database, it has implemented multiple programs and guidelines to further address this issue. Furthermore, the UN Environment Programme has supported governments in promoting policies that reduce climate pollutants, and UN-Habitat has integrated air quality considerations into urban planning frameworks that specifically aim to help developing countries.



Questions to Consider in Personal Research

- What are the major sources of air pollution in (Country) urban areas?
- What policies or actions has (Country) implemented to reduce urban air pollution?
- How does urban air pollution impact vulnerable populations in (Country)?
- What is (Country) position on international cooperation to address and combat urban air pollution?
- How can sustainable urban planning in (Country) cities help to reduce air pollution?
- Are polluting industries in (Country) supported, regulated, or penalized?



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