

Forum: Human Rights Council

Issue of: Air quality as a human right

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Introduction

Air is vital for all living beings on the planet, including the human. People have no choice but to breathe the air around them; yet when air is polluted with particulates and harmful gases, even the basic living standard of breathing becomes a threat to health, which, according to the Universal Declaration of Human Rights (UDHR), is a basic human right. This is why measures to ensure air quality should be implemented; however the adoption of such measures could hamper the development of some countries, who are the most reliant on power plants and manufacturing facilities – main sources of pollution – to maintain a stable economic situation. The problem would therefore be to find an equilibrium between the reduction of air pollution and the development of these countries.

Definition of Key Terms

Right to health

The preamble of the 1946 World Health Organization (WHO) Constitution defines health broadly as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Article 25 of the United Nations' Universal Declaration of Human Rights 1948 states that "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services."

Natural gas

Natural gas mainly consists of methane (CH₄). Other components include ethane (C₂H₆), carbon dioxide (CO₂) and nitrogen (N₂). Natural gases, which are very flammable, are mostly burned as fuel, and are thus largely used by industrial nations. Also known as greenhouse gases, they are a main factor to air pollution and climate change.

Climate change

Disruptive changes in patterns of temperature, precipitation of rain or snow, humidity, wind and seasons. Climate change is often considered to be caused by accumulation of greenhouse gases in the atmosphere, but may also result from natural processes.

Particulates

Atmospheric particulate matter – also known as particulate matter (PM) or particulates – are microscopic solid or liquid matter suspended in the Earth's atmosphere. They have impacts on climate and precipitation that adversely affect human health. Fine particles with a diameter of 2.5 µm or less are known as PM_{2.5}.

Indoor Air Quality (IAQ)

Indoor air quality (IAQ) refers to the air quality within and around buildings and structures, especially as it relates to the health and comfort of building occupants. IAQ can be affected by gases, particulates and contaminants that can induce adverse health conditions. Filtration and the use of ventilation to dilute contaminants are the primary methods for improving indoor air quality in most buildings.

Toxic hotspots

Toxic hotspots are locations where emissions from specific sources such as water or air pollution may expose local populations to elevated health risks, such as cancer. These emissions contribute to cumulative health risks of emissions from other sources nearby. Urban, highly populated areas around pollutant emitters such as old factories and waste storage sites are often toxic hotspots.

Ozone layer

Ozone exists in earth's stratosphere and is responsible for protecting humans from harmful ultraviolet (UV) rays. Earth's ozone layer is depleting due to the presence of chlorofluorocarbons, hydro chlorofluorocarbons in the atmosphere. As ozone layer will go thin, it will emit harmful rays back on earth and can cause skin and eye related problems. UV rays also have the capability to affect crops.

Background Information

Economic effects of pollution

According to a joint study by the World Bank and the Institute for Health Metrics and Evaluation (IHME), air pollution costs the world economy 5 trillion dollars every year because of productivity losses, due to diseases caused by air pollution, and degraded quality of life. Additional economic losses caused by air pollution include health costs and the adverse effect of ground level ozone on agricultural productivity.

Health effects of pollution

Chronic obstructive pulmonary disease (COPD) includes lung diseases such as chronic bronchitis and emphysema. Asthma and COPD is increasingly related to exposure to traffic-related air pollution. Additionally, air pollution has been associated with increased hospitalization and mortality from asthma and COPD. According to the World Health Organization (WHO), COPD is one of the ten first causes of mortality in the world.

Major Countries and Organizations Involved

Industrialized countries

The economy of industrialized countries is greatly dependent on industries. Countries that are industrialized include the United States, France, Germany, Japan, the U.K, etc. The majority of these countries have attempted to improve conditions by regulating rules, and setting standards.

Growing economies

In economically developing countries such as Brazil, China, and India, air quality plummets under the influence of factors such as rapid motorization, power plants and manufacturing facilities

World Health Organization (WHO)

The WHO took a leading role in efforts to reduce air pollution and enhance air quality. In 2005, WHO proposed a “WHO air quality guidelines” to offer global guidance on air pollutants that induce health risks. The Guidelines apply worldwide and are based on scientific evidence and research for particulate matter, ozone, nitrogen oxide and sulphur dioxide.

Timeline of Events

Date	Description of event
1952	Great Smog of 1952 in London: collection of airborne pollutants formed a thick layer of smoke over the city and lasted for four days. Reports estimated 4,000 premature deaths and 100,000 injuries (diseases) as a result.
1979	Convention on Long-Range Transboundary Air Pollution (CLRTAP): intended to protect the human environment against air pollution and to reduce and prevent it.
1981	Chicago Convention on International Civil Aviation in Montreal: establishment of the International Civil Aviation Organization (ICAO), a UN specialized agency responsible for the regulation of international air travel.

1984	Bhopal disaster in India: gas leak in India. Consequences: around 3,000 deaths and 558,000 injuries (diseases).
1985	Vienna Convention for the Protection of the Ozone Layer: international efforts to protect the ozone layer. Most successful international treaty in history: ratification by 197 states (all UN member states) and the entire European Union
1992	Establishment of the United Nations Framework Convention on Climate Change (UNFCCC): with the stabilization of greenhouse gas concentrations in the atmosphere

Previous Attempts to solve the Issue

WHO efforts

- WHO Member States recently adopted a resolution and a road map for an enhanced global response to the adverse health effects of air pollution.
- WHO creates detailed health-related assessments of different types of air pollutants, including particulates and black carbon particles, ozone, etc.
- WHO produces evidence regarding the linkage of air pollution to specific diseases, such as cardiovascular and respiratory diseases and cancers, as well as burden of disease estimates from existing air pollution exposures, at country, regional, and global levels.
- WHO's "Health in the green economy" series is assessing the health co-benefits of climate mitigation and energy efficient measures that reduce air pollution from housing, transport, and other key economic sectors.
- WHO's work on "Measuring health gains from sustainable development" has proposed air pollution indicators as a marker of progress for development goals related to sustainable development in cities and the energy sector.
- WHO assists Member States in sharing information on successful approaches, on methods of exposure assessment and monitoring of health impacts of pollution.
- The WHO co-sponsored "Pan European Programme on Transport Health and Environment (The PEP)", has built a model of regional, Member State and multi-sectoral cooperation for mitigation of air pollution and other health impacts in the transport sector, as well as tools for assessing the health benefits of such mitigation measures.

Possible Solutions

Clean energy resources

Clean energy technologies like solar, wind and geothermal are “ecological” and do not emit harmful gas or air pollutants. Governments of various countries have been providing grants to consumers who are interested in installing solar panels for their home. However, clean energy technologies remain expensive, and access to these resources is still relatively limited.

International cooperation

As of today, most of the efforts to mitigate air pollution are national; yet air pollution has led to consequences of global concerns. Focused international efforts are crucial in order to regulate air pollution and to acknowledge air quality as a human right. For example, developed and industrialized countries could play an important role in granting growing economies access to clean energy resources.

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