Committee: Environment

Issue: Preventing and Reducing Air Pollution to Improve Air Quality Globally

Subject Officer: Jack Tristani (Felsted School)

Background Information

Air Pollution is on the rise globally. It is typically split into two subgroups: ambient (outdoor) air pollution, caused by fuel combustion and road traffic or the burning of fossil fuels and household (indoor) air pollution, which can be caused by stoves or open fires. These two types of air pollution together cause an average of 7 million deaths per year, according to the World Health Organisation. Particulate matter (PM2,5) is especially harmful to a human's cardiovascular and respiratory systems. Inhaling this matter, of a diameter of 2,5 microns can also lead to cancer, especially in the lungs. Policies have been passed in sectors such as industry, energy, transport, urban planning, power generation ,and municipal and agricultural waste management, with the aim to make them less harmful to the environment by using clean technologies and the UN is working with countries across the globe to combat air pollution.

Key Terms

Air pollution

Air pollution is the term used which applies to any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere.

NGO

A Non-Governmental organisation that addresses social or political problems on a local, national or international level, independent from any government.

Particulate matter (PM)

PM affects the population more than any other pollutant. PM particles most commonly come in sizes of 10 microns or less in diameter (coarse PM) and 2.5 microns or less in diameter (fine PM). These particles can either anchor themselves deep into the lungs or enter the blood system causing cancer and cardiovascular diseases.

Ozone (O3)

Ozone is mostly responsible for visible smog in the air. It is the product of a reaction between sunlight and industry and vehicle emissions; and can cause a variety of problems in the lungs including asthma and lung disease.

Carbon dioxide (CO_2)

Carbon dioxide is a colourless and odourless gas, which is part of vehicle emissions and can cause a variety of health effects, including increased heart rate and blood pressure. It is absorbed by plants during the process of photosynthesis, in which carbon dioxide is turned into oxygen.

What the UN has done

Paris Agreement

On the 12th of December 2015 the Paris Agreement was adopted after being drafted by a coalition of 196 countries. Its central aim is to keep the increase in temperature below two degrees centigrade and to help nations across the globe in dealing with the impact of climate change.

Kyoto Protocol

The Kyoto Protocol, which was initially adopted in 1997, aims to reduce climate change by setting emission targets. Its commitment period was extended in 2012 to the end of the year 2020.

Bibliography and links

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http://www.greenpeace.org/eastasia/campaigns/air-pollution/
http://www.worldbank.org/en/topic/environment/brief/pollution
https://unfccc.int
Draft resolution:
http://www.ccacoalition.org/en/resources/preventing-and-reducing-air-pollution-improve-air-quality-globally-resolution-adopted-2017

Issue: Promoting the Responsible Disposal of Electronic and Hazardous Waste

Subject Officer: David Townsend (Felsted School)

Globally, at the moment only 13% of electronic waste is recycled and electronic waste makes up around 5 % of solid waste worldwide. This has caused major problems, due to the pollution that this causes. Lithium batteries that are used in mobile phones, laptops and electric cars all require lithium mining. This has caused protests in places such as Tibet where pollution due to leaks has caused mass deaths of fish, which is integral to peoples' livelihood. This rising problem requires solutions as developed countries are expected to triple their electronic waste production over the next five years.
Another rising problem is developed nations export their waste to developing nations, such as to Ghana, whose capital, Accra, contains one of the worlds largest e-waste dump sites, where workers' rights and environmental regulations are not as strictly enforced. Here, waste is placed in landfill, causing workers to be exposed to toxic fumes. Additionally, according to Greenpeace inspections in 2005 of 18 European seaports, 47% of exported e-waste was being done illegally.

Examples of proposed solutions have come from the UK which passed the Hazardous Waste Act 2005: this requires all industries that produce more than 500 kg of hazardous waste to register with the government. Independent campaign groups such as Greenpeace have suggested that manufacturers should be responsible for their waste and cleaning up their waste should come at their own expense.

Bibliography and links

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Issue: Addressing Marine Plastic Litter and Microplastics

Subject Officer: Jake Madisson (Felsted School)

Description of current situation

In January 1992 a cargo ship sailing from Hong Kong to Washington hit a storm, sending 12 containers overboard; 28,800 bath toys were released into the ocean. Every year, more than 8,000,000 tons of plastic waste leak into the world's oceans, the equivalent to 15 plastic shopping bags for every metre of coastline on Earth. There could be more plastic in the ocean than fish by 2050 if current trends continue.

There are five spots on Earth where the ocean gathers masses of plastic debris; West/ East/ South Pacific Gyres and North/ South Atlantic Gyres. The plastics, however, are broken down by the sunlight, waves and fish eating them. That is how microplastics originate. Fish and other animals that get their food from the ocean eventually eat these microplastics and the plastics become more concentrated as they move up the food chain.

Possible solutions

6 R's:

- **R**educe; reduce the amount of plastics we use
- **R**euse; many plastics can be reused
- **R**ecycle; almost all developed cities have recycling bins everywhere to dispose of plastics
- **R**ethink; question if some plastics are actually necessary, such as plastic straws
- **R**epair; if plastic breaks, try repairing it before throwing it away or buying another one
- **R**efuse; refuse to use new plastics all the time, change the way we use plastics

The UN has announced that it is working on a global ban on the use of microplastics in cosmetics.