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EAP Problem Solving

**Overview - Ahrin Jang**

Every year, millions of people die because of air pollution. According to the Global Burden of Disease Study 2019, almost one in ten died of air pollution. In recent decades, death rates from air pollution have seen a significant decline, but most of the population is exposed to air pollution. The World Health Organization (WHO) set out Air Quality Guidelines (AQG) to minimize the exposure of air pollution. According to the World Development Indicator research in 2021, 95 percent of the world population exceeds WHO guidelines. Air pollution is worsened by various reasons, and it affects human health and environment. There is no doubt that we should be concerned about reducing air pollution.

**Cause - Yehezkiel Alexander**

There are many causes of air pollution. The list mainly includes fossil fuel burning, industrial emission, wildfires, and burning of garbage wastes. As technology advances and people are in desperate need of more energy, we release more and more harmful chemicals to the atmosphere. As the human population grows rapidly as time goes by, the use of cars and factories also increases. This is the main cause of air pollution nowadays. These factories, which mainly use coal and wood for energy, emit nitrogen dioxide, sulfur dioxide, and carbon monoxide into the atmosphere. Wildfires also contribute to air pollution really drastically, especially if it spreads to a large area. These are the main causes of air pollution today.

**Effect - Hyunuk Kim**

We can view the effects of air pollution in environmental and human aspects. Technology is overgrowing, but fossil fuels and hazardous chemicals continually accumulate on Earth. Max Roser (2021, November 25) in Our World in Data said that the proportion of people who die caused to air pollution is three times larger than diseases or road accidents. Global industrialization is causing forests to disappear and making the air foggy because of deserts. Moreover, Lizzy Rosenberg (2022, May 9) said that acid rain mixed with pollutants in the air could eliminate nutrients in the soil and weaken plant roots. From the other point of view, it impacts humans from a long-term perspective. Krystal Vasquez (2022, May 5) said long-term exposure to environmental pollution damages the lungs and organ system and severely affects the brain and central nervous system. In addition, the photolysis of ozone present on the surface creates oxidative substances and quickly accumulates in the body, causing diseases**.** These are the most severe effects of air pollution.

**Solution - Dabin Song**

The solution to air pollution can be thought of in two directions. There are things that individuals can practice at home or in their daily lives, and things that can be realized at the government or company level. Let’s find out the individual's duty first. Make good choices about transportation. Choose a car that gets better miles per gallon of gas, or choose an electric car. Buying your food locally cuts down on the fossil fuels burned in trucking or flying food in from across the country. Conserve energy everywhere. Look for the ENERGY STAR label when buying equipment. Next, let's look at the obligations of the government and the company. Most effective way to control air pollution is to speed up our development to cleaner fuels and industrial processes. By switching over to renewable energy sources (such as wind and solar power), maximizing fuel efficiency in our vehicles, and replacing more and more of our gasoline-powered cars and trucks with electric versions, we can keep under control air pollution at its source while also curbing the global warming that heightens so many of its worst health impacts. Since electric cars are considered important to solve air pollution, the government should help by providing subsidies to encourage individuals to buy electric vehicles.

**Conclusion - Dabin Song**

Our group investigated the cause and effect of air pollution. From an individual's point of view, the best action to solve air pollution is to use public transportation, and from a company's point of view, the best solution is changeover from fossil fuel to renewable energy. Our group worked by sharing the articles that each researched, defining our opinions based on them, and then writing out parts of the group report.

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