



UNFAO - United Nations Food and Agriculture Organization

Large Corporations Polluting Water

Introduction:

The standard water bottle will serve its purpose of providing a drink to its buyer, then quickly find its way to a trash can, recycling bin, or will be offloaded as litter at the nearest convenience. Bottles such as these often find themselves as pollution. Pollution consists of no longer needed man-made items that have ended up in a natural environment. Pollutants, such as excess plastic, interfere with wild animals, sewage waste runs untreated to the oceans, and chemical and oil spills spout from civilization with little regulation in place to stop it. Water pollution has an array of unsavory effects on the planet. Aquatic animals can eat bits of plastic or become tangled in abandoned fishing equipment. Toxic runoff can lead to blue-green algae blooms that often outcompete native wildlife. Even humans themselves can be harmed when sewage is dumped into water sources used for drinking and fishing. With the severity of the pollution problem there is no denying that an effective solution is greatly needed. ¹

¹ <https://www.nationalgeographic.org/encyclopedia/pollution/>

Causes:

One of the most prominent sources of water pollution are plastics. Current society is made aware of this issue by influential people and organizations that urge civilians to use reusable shopping bags instead of their plastic counterparts. However, the issue extends beyond mere grocery bags and plastic straws. Plastic has been a part of human life since the early twentieth century when only their benefits were acknowledged. Now, everything from abandoned fishing nets and food wrappers, to toothbrushes and plastic packaging have found their way into the Earth's oceans and rivers. These plastics pose threats to sea life. Fish, turtles, and birds easily confuse plastics with food, which causes their stomachs to fill with indigestible materials. Simulating satiety, animals will not search out true food with nutritious value and many starve to death.² Because plastics never biodegrade, and only break apart into smaller pieces, microplastics pose their own array of threats. Plastics break down into fragments five millimeters or smaller, which have been detected throughout the world's water supply, and even in the air. Microplastics also absorb chemical pollutants and expel them into the ocean where they end up.³

Society thoughtlessly uses water everyday for menial tasks. Corporations produce sewage water (wastewater) and improperly dispose of it. "More than 80 percent of the world's wastewater flows back into the environment without being treated or reused, according to the United Nations; in some least-developed countries, the figure tops 95 percent. According to EPA estimates, our nation's aging and easily overwhelmed sewage treatment systems also release more than 850 billion gallons of untreated wastewater each year."⁴ The water becomes even

² <https://www.nationalgeographic.com/environment/habitats/plastic-pollution/>

³ <https://oceanservice.noaa.gov/hazards/marinedebris/plastics-in-the-ocean.html>

⁴ <https://www.nrdc.org/stories/water-pollution-everything-you-need-know>

more toxic when it collects harmful substances such as oil and chemicals. This toxic sludge then re-enters our waterways and becomes harmful to the people and wildlife surrounding it.

Stormwater mixes with sewage and causes a problem when dealing with the drainage of the water. Before thorough research was conducted, most American sewage ended up in lakes or rivers near the source, and received little to no treatment. Despite the implementation of better infrastructure since the Clean Water Act was passed in 1972, many facilities still deal with extra wastewater escaping into nearby bodies of water.

Many corporations are found guilty of polluting nearby water sources with large amounts of oil and chemicals. Oil causes problems for local flora and fauna, the human population in the area, and the quality of water. “Oil pollution can have a devastating effect on the water environment, it spreads over the surface in a thin layer that stops oxygen getting to the plants and animals that live in the water.”⁵ This thin layer causes problems in the area, as thousands of animals die when their water repellency and insulating exterior is damaged. The ability to repel water means they have the capacity to remain waterproof. Their insulating exterior allows them to control the temperature of their bodies to prevent freezing or overheating. If birds lacked the faculty to repel water or control their homeostasis, the birds would experience hypothermia when in contact with water. Chemicals used by major chemicals, such as herbicides and metals, affect the water surrounding the factories. This can result in acid rain and radiation poisoning. Acid rain occurs when chemicals are mixed in with bodies of water, and then enter the water cycle, thus returning to the earth as acid rain.

⁵ <http://oilcare.org.uk/what-we-do/impacts-of-oil/>

Though mass pollution of the oceans and rivers remains one of the biggest environmental problems to date, most of it was done accidentally. For example, in the early 1970's, a group of fishermen set up an artificial reef off the coast of Fort Lauderdale, Florida. The reef was constructed from two million used car tires in hopes that live coral and the sea life found at reefs would start to populate it. However the 'reef' never inspired growth and remained dormant up until extraction of the tires began in 2007. The original idea behind the project was pure, yet it ended up destroying living coral and releasing tire fragments into the surrounding environments.⁶ Another accidental pollution nightmare occurred in 2010 when a BP oil pipe began leaking gas and oil into the Gulf of Mexico. The spill, lasting 87 days, leaked 3.19 million barrels of oil into the Gulf waters. Although the spill was completely accidental, the effects couldn't be more real. This tragedy, known as the Deepwater Horizon oil spill, resulted in the loss of more than a hundred thousand animals. Seabirds lost their ability to fly when their wings became soaked in oil that had floated to the surface. Oil impeded the abilities of the local coral to grow and reproduce. Damage was found reaching all the way to Floridian shorelines.⁷ Yet another source for mass pollution lies with large corporations using and selling single use plastics. Nestlé, a multinational food and drink company, has been named the worst plastic polluter from studies done in both 2017 and 2019.⁸ By simply refusing to stray from the usage of single-use packaging, Nestlé has produced over 1.5 million metric tons of product. Much of this has ended up polluting the oceans of developing countries, leaving them with a mess they can do little about.

⁶ <https://www.npr.org/templates/story/story.php?storyId=11462066>

⁷ <https://ocean.si.edu/conservation/pollution/gulf-oil-spill>

⁸ <https://www.greenpeace.org/usa/news/nestles-plastic-monster-spews-pollution-at-companys-u-s-headquarters/>

The agricultural industry causes harm to one of its largest sources. Many countries face difficulties when obtaining clean water to use for crops; however, large corporations pollute water by using chemicals like pesticides. Salts and metals raise the concentrations in water and make it difficult for plants to grow properly, resulting in stress and in crop failure. Companies with poor irrigation systems cause problems such as salinization and water logging. Salinization occurs when the salt levels within soil increase to unsafe amounts and can cause the water to eventually dry up. Water logging is the process of over saturating a land of soil that the water cannot be absorbed. Weak systems like this affect the water sources needed to support the agricultural system.

Although there are many corporations disregarding the harm they cause to the environment, there are some major ones to focus on. The top ten companies that produce plastic waste include “Coca-Cola, PepsiCo, Nestlé, Danone, Mondelez International, Procter & Gamble, Unilever, Perfetti van Melle, Mars Incorporated, and Colgate-Palmolive.”⁹ The automobile industry is the cause of the largest percentage of lead pollution in water. Based on an English study, the following companies produce more water pollution than the entire United States: Saudi Aramco, Exxon Mobil Corp., OAO Gazprom, the National Iranian Oil Co., and BP Plc and Royal Dutch Shell Plc.¹⁰

This Committee:

The United Nations Food and Agricultural Organization prioritizes the wellbeing of people and the environment around the world. They try to rebuild areas greatly affected by creating sustainable programs or methods to ensure the country can reestablish itself. Along with

⁹ <https://www.ecowatch.com/worst-plastic-polluting-companies-2611144880.html>

¹⁰ <https://www.agweb.com/article/the-8-companies-that-cause-more-pollution-than-the-entire-us-blmg>

UNFAO, countries establish legislation to ensure they don't experience downfalls in their surrounding environment. During 1993, the Clinton-Gore administration passes the Pollution Prevention Act to "prevented or reduced at the source whenever feasible. The Administration's budget request for the 1994 fiscal year includes a \$33 million increase in spending for pollution prevention programs at EPA"¹¹ The Environmental Protection Agency (EPA), helps advance environmental policies to improve legislation regarding our environment. Corporations pay a small fee to dump waste into water, which doesn't equate to the damage they are causing on the environment and people around them. Taxpayers end up fronting most of the cost for solving environmental problems. The Clean Water Act passed in 1972 in the United States in order to establish a standard for regulating the quality of water. An established list of criteria outlines programs for pollution control and reduction of pollution on the surface. It is now illegal to release pollutants "from a point source into navigable waters, unless a permit was obtained."¹² Despite many of these efforts, many countries still endure the effect of having pollution in their environment. Developing countries relying heavily on natural resources for trade face many economic difficulties. Populations in these countries are hindered by the poor air and water quality and face the health problems associated with pollution from large corporations.

Past Solutions:

Although no solutions have been permanent, there have been many organizations who have dedicated their time and money to prevent water pollution from completely destroying our clean water. For example, WWF, with the help of over 150,000 volunteers, are aiming to stop the degradation of our planet's natural environment and desire to build a future in which humans can

¹¹ <https://www.epa.gov/p2/pollution-prevention-policy-statement>

¹² <https://www.epa.gov/laws-regulations/summary-clean-water-act>

live in harmony with nature¹³. Nestlé employees use their volunteer days to clean up litter and avoid the use of single-use plastics daily.¹⁴ There is also an organization called WaterCan which aspires to fight global poverty by helping the world's poorest people gain access to clean water, basic sanitation, and hygiene education. Alongside these many organizations, there are countries who have taken action as well.

Recently, China unveiled its Action Plan for Water Pollution Prevention and Control. One of the main focuses of this plan is to protect water sources by carrying out protection schemes and setting up preservation zones. This plan also set targets for improving the quality of urban drinking water, groundwater, and coastal waters. The country has now set water tariffs into place and have requested all cities report data on the cleanliness of their drinking water.¹⁵ Check out the link below for information on Project STOP and their battle to find a long-term water pollution solution in Indonesia.

Link: Project STOP

<https://www.stopoceanplastics.com/how-a-picturesque-fishing-town-became-smothered-in-trash/>

¹³ <http://thewaterbrothers.ca/education/water-organizations/>

¹⁴ <https://www.nestle.com/media/pressreleases/allpressreleases/nestle-action-tackle-plastic-waste>

¹⁵ <https://www.marketwatch.com/story/inside-chinas-grand-plan-for-water-pollution-2015-05-04>

Questions to Consider

1. How should each type of pollution be addressed throughout committee?
2. How do solutions vary based on the type of pollution being addressed?
3. Who should pay for damages caused by corporations and where could this money go?
4. Would this payment be proportional to the damage caused by each nation?
5. How can legislation already put into place be modified to solve the issue?
6. Would an individualized system be required for each nation and how would you ensure each country abides by it?
7. Should there be negative ramifications for countries who continue to pollute?
8. Can a universal solution be agreed upon to officially end the issue of the committee?
9. How soon should total change be implemented?
10. Who should facilitate the process across different nations?

Works Cited

“Automobile Industry Largest Source of Lead Pollution Today.” Environmental Defense Fund, www.edf.org/news/automobile-industry-largest-source-lead-pollution-today.

Bloomberg. “The 8 Companies That Cause More Pollution than the Entire U.S.” AgWeb, 8 Mar. 2017, 15:42, www.agweb.com/article/the-8-companies-that-cause-more-pollution-than-the-entire-us-blmg.

“EPA's Administrator.” EPA, Environmental Protection Agency, 22 July 2019, www.epa.gov/aboutepa/epas-administrator.

“FAO.org.” FAO, 2019, www.fao.org/about/what-we-do/en/.

Food and Agriculture Organization of the United Nations, director. Combatting Plastic Pollution with Sustainable Bio-Based Packaging . YouTube, 31 Oct. 2017, youtu.be/vgJ3et8KK_o.

Gregerson, Erik. "Sludge Treatment and Disposal." Encyclopædia Britannica, Encyclopædia Britannica, Inc.,
www.britannica.com/technology/wastewater-treatment/Sludge-treatment-and-disposal.

Omoju, Oluwasola. "Environmental Pollution Is Inevitable in Developing Countries." Breaking Energy,
breakingenergy.com/2014/09/23/environmental-pollution-is-inevitable-in-developing-countries/.

Pariona, Amber. "What Is The Environmental Impact Of Irrigation?" WorldAtlas, 3 Apr. 2017,
www.worldatlas.com/articles/what-is-the-environmental-impact-of-irrigation.html.

"Summary of the Clean Water Act." EPA, Environmental Protection Agency, 11 Mar. 2019,
www.epa.gov/laws-regulations/summary-clean-water-act.

US Department of Commerce, NOAA, and National Oceanic and Atmospheric Administration. "What Are Microplastics?" NOAA's National Ocean Service, 13 Apr. 2016,
oceanservice.noaa.gov/facts/microplastics.html.

Winn, Patrick. "5 Countries Dump More Plastic into the Oceans than the Rest of the World Combined." Public Radio International, GlobalPost, 13 Jan. 2016,
www.pri.org/stories/2016-01-13/5-countries-dump-more-plastic-oceans-rest-world-combined.