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# WATER POLLUTION

Water and groundwater pollution  
**Lithuania-1.1**



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Water or also commonly known as its chemical formula  $H_2O$ , is one of the many things essential to life, despite not actually giving any nutrients or energy. It is found everywhere from rivers and lakes to even our own bodies consisting of 70% water, water can also be found in the sky as clouds or it can occur as groundwater beneath the earth's soil. It does in fact cover around 70% of our planet's earth's surface so what can you expect? It is the one of the many things that if we as humans do not have, we will not survive in any circumstance. It is necessary for life and its existence.<sup>1</sup>



Image by Dimitris Vetsikas from Pixabay

A person can survive up to a month without food, but only three days without water. Water being the most important compound on earth, as it is the formula to life. It allows Water plays a crucial role in facilitating the chemical reactions necessary for organic compounds to replicate and sustain life. In fact, all known forms of life are dependent on this vital resource. Early civilisations used to live and flourish near rivers and other major water sources because of its properties.

Even the so-called cradle of civilization was situated between two rivers. The ancient Egyptians entirely depended on the Nile. Natural water sources make soil fertile by distributing natural fertilisers through the soil by being a great solvent making it a suitable place to grow plants and produce. This helped early civilisations, our ancestors, to survive. Helping early agricultural discoveries and advances.

The global economy is significantly influenced by water. The most substantial human use of water is for agriculture, together with irrigated agriculture, approximately 70% of the freshwater used by humans goes to agriculture. Only within the US every forty seconds fresh water is withdrawn to be used for irrigation, however the overwhelming majority of water “consumed” (used and not came back to the environment) goes to agriculture.<sup>2</sup>

Access to H<sub>2</sub>O is usually taken with no consideration, particularly in developed countries that have engineered refined water systems for collection, purifying, and delivering water, and removing sewer water. However, growing economic, demographic, and climate pressures are increasing considerations concerning water problems, resulting in increasing competition for mounted water resources, giving rise to the idea of peak water.



With this information you can clearly see why this liquid is so important to us. But these days water gets polluted by all kinds of sources, causing one of the worst problems for our generation. So, what are these problems and what are the viable and practical solutions to fight this crisis?

Albert Szent – Györgyi once said that “Water is life’s matter and matrix mother and medium. There is no life without water.”<sup>3</sup> In the past, we had access to just about everything we required to thrive on Earth, particularly water and nourishment.

But sadly, these days this perfectly synced world is a thing of the past, but times have changed. The number of people, the world’s population, has increased to even 8 billion people, the needs of each of us have increased.

The waste increased along with the amount of water required for consumption and survival. Hence began the age of industrialization, we started to try to mass produce everything. The pollution spread through most of our planet and water got contaminated in ways we could not even imagine. Leaky oil tankers, drainage systems, untreated sewage, oil from cars, ships are thrown into the ocean and this infects our precious bodies of water that we later use for drinking, watering our plants and so many other things.<sup>4</sup>



Only one in three people have access to clean drinking water which means that most of the planet’s population do not even have the most necessary thing for our body. In many countries, there is a poor process of water purification and screening or the water is so polluted that even through filtration there are still harmful microplastics left in the water. This kind of harmful pollution can cause terrible diseases such as cholera, tuberculosis which sometimes could be fatal.



We also do not see a lot of harm with the naked eye, one of which is groundwater pollution, when farmers fertilise their crops with pesticides and feed, all this travels deep into the soil and pollutes groundwater. As a result, there is only around one percent of freshwater in the world, which is suitable for human consumption.

An acute water crisis is glaring at us. The water pollution crisis affects everyone including animals and plants around us.

Without a doubt, let us not forget about marine animals that live in a poisoned environment. Studies show that harmful chemicals were found in the abdomens of dead animals.

When the composition of water is changed, aquatic life suffocates due to the inadequacy of oxygen.<sup>5</sup> Due to human carelessness and littering, there is a huge threat to the life of aquatic animals. Not only is there a threat to aquatic life through these issues but it is affecting all of us even in ways we cannot imagine. If this global issue does not get fixed at least a bit it might affect us in more ways than one.



We must reduce water pollution, or our world may be in danger, which is why there are many solutions to combat the problem and most of them are remarkably simple. Just because you cannot see the problem or it does not get mentioned, it does not mean that it just vanishes. Stopping water contamination at the source is the best way to prevent it.

The good news is that there are various ways to lessen water pollution, including wastewater treatment, stormwater management, and water conservation. You can also just conserve water by turning off the tap when running water is not necessary.

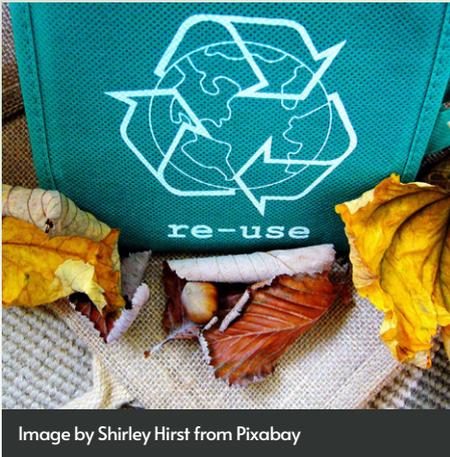


Image by Shirley Hirst from Pixabay

This lessens the amount of contaminated water that needs to be treated and prevents water shortages. It is important to be mindful of what is disposed of through our plumbing systems. Avoid flushing items such as paints, oils, and other forms of trash down the toilet or sink to help maintain water quality. Use eco-friendly household products including toiletries, laundry detergent, and cleaning supplies.

You can always take great care not to overuse pesticides and fertilisers.<sup>6</sup> This will stop the debris from washing into local water sources.

You can stop fertiliser, pesticides, and contaminated water from seeping into surrounding water sources by increasing the number of plants in your garden.

But most importantly the most efficient way to prevent this problem is to know what causes it. Water pollution can come from any one of the following things: urban development, sewage & wastewater, mining, marine dumping, burning fossil fuels, products used in agriculture such as chemical fertilisers & pesticides, sewer leakages, radioactive waste, animal waste, eutrophication, acid rain and worst of all oil leakages.

And to these problems there are also solutions that you can personally do which are simple and straightforward: report water polluters, check what waterway your drain connects to, use phosphate-free laundry detergents and dishwashing liquid, dump oil, fat, and grease down the drain, and appropriately dispose of medical and chemical waste, do not flush medications down the toilet or rivers, support environmental charities, avoid single-use plastics like plastic bottles and plastic grocery bags, try to recycle everything you can in one way or another, keep on top of vehicle maintenance to prevent oil leakage and lastly you could just do a basic beach clean-up if you live by the coast or remove plastic from rivers near your home.<sup>7</sup>



Image by VIVIANE MONCONDUIT from Pixabay

Finally, you should keep the problem of water contamination in the back of your mind as you go about your everyday business. You should always keep in mind things you do that pollute the environment.



In conclusion, water pollution is not helping anyone in any way and it is hurting everyone and everything. From us humans to the microorganism in the water it is devastating what we have done to our water, our planet. With pollution being mostly everywhere these days, in our water, in our air, there's even microplastics in the food we consume and make. It is likely that we are going to slowly poison ourselves with these harmful elements.



Photo by Anh Vy on Unsplash

If that magically does not happen, we and the creatures besides us on this blue planet will suffer in other ways. Some might go extinct because of it, some might just be near extinction. Whatever will happen will not be good. Neither for us or the planet we live on. We are seeing the results of this demanding situation even today.

As the water levels rise and places get flooded with the same polluted water. And sadly, most of the people alongside us are not acknowledging the situation and ignoring it.

Even though it is obvious by just looking at other organisms and how they need to adapt while we use our single-use plastics and throw non-recyclable litter into nature that later ends up in their habitats. That is completely devastating not only for nature but for our society to either not realise this or they are just ignoring it and are making it seem ok when it is not.

There are many ways you can prevent this. It is not as challenging as some individuals would have you believe. As our planet is slowly getting increasingly polluted with inorganic materials such as polymers polluting it, we have no choice but to do something about it. If we do it too late it will be a permanent problem that will affect the earth forever, it will be an even bigger problem for the future generations, our offspring if we do not do anything might not even be able to fix this.



Photo by Naja Bertolt Jensen on Unsplash

Imagine that, we screwed up so badly that it will be affecting people for centuries, millennia even and we cannot ignore it because we, our generation, is the last one that can fix it, and most of us are just trying their best.



The real threat is the people that are choosing to ignore this problem, the news outlets, the governments, even just normal ordinary people that are spreading misinformation on the internet all across the world.

We live in an imperfect world and maybe not everything is fixable especially with everything that is going on right now, but is it that hard to at least try? To try to do something that could at least help a bit in this crisis. So, what will you do to contribute?



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