



## Over Populations Effect on the Environment

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As overpopulation continues to become an overbearing problem in our world, it affects human necessities. With “9.6 billion Earthlings by 2050, and up to 11 billion or more by 2100,” the trend of population growth is only increasing (Dimick 2). “Where and how we live affect virtually every aspect of the planet,” including global issues such as resource availability, food security, and pollution (Dimick 4).

As the human population finitely increases, our natural resources are inversely plummeting in availability. Humans have taken control of nearly every naturally occurring process on the Earth. From farming, hunting, fishing, logging, and mining, humans are altering natural processes to their benefit. Although these activities may provide convenience in the short term for our growing population, as time elapses, our natural resources are depleting with increased usage. This not only decreases the availability of natural resources but also affects other aspects of human life because of our heavy reliance on them.

Humans have exceeded a point in which we can replace natural resources to sustain our growing population. As humans become more dependent on, “diverse energy sources rather than human power,” we start to rebuild our lives around machinery that utilizes natural resources (Pimentel 8). For example, to support basic human life we build shelters. However, “vegetation is destroyed for the singular purpose of construction” when utilizing natural resources such as trees and land for these activities (Obaisi 19). Furthermore, functionality in most households requires natural resources which results in the “rise in the use of coal, oil, and gas” (Dimick 14). As a result of the increased reliance on these sources, “we now use the equivalent of 1.5 planets to provide the resources we use, “making it impossible to replace in a respective time (Dimick 25). The excessive use of natural resources can affect how we conduct human life in the future and may negatively impact our standard of living because of our reliance on them.

Furthermore, the safety of agriculture and food is expected to decline with the increasing population. As more people are needed to be fed, basic agricultural methods are not sufficient for efficient food production because it “[does] not allow for cultivation and production of a particular crop on the same piece of land for a prolonged period of time” (Obaisi 4). In previous attempts to do this “arable cultivable land has been degraded and destroyed as a result of population pressure” (Obaisi 4). The alternative method many farmers are looking at includes GMO foods. While this can be an effective way to produce food in bulk for our growing population, it can have negative underlying effects on agriculture and food security.

With the increasing need for more food, we are being limited by time as, “the number of people in a region exceeds the occupied region's carrying capacity to sustain,” people (Obaisi 3). Since more than 99.9% of human food is derived from land,” humans rely heavily on agriculture to fend our species (Obaisi 14). However, because of this, the land is unable to,” regenerate itself before cultivation is carried out again” and is,” negatively and adversely [affecting] the health of the soil” (Obaisi 4). While GMOs are an efficient solution to this, when pesticides are used to increase food production it depletes the soil and risks the safety of the crop. Furthermore, “agricultural runoff”, from damaged soil “also threatens the world’s drinking water” and causes several water systems to be polluted (Pimentel 11). These methods are putting food and water security at risk altogether, jeopardizing human necessities such as arable land for food production and drinkable water.

This allows for discussion about another factor that overpopulation contributes to: pollution. Pollution makes it difficult for humans to live and takes away basic human necessities such as clean oxygen and drinkable water. “Environmental changes” such as these cause” depleting health rates and “have led to an explosion in diseases affecting humans” (Pimentel 12). Health is a human necessity that

becomes increasingly important as our world suffers from overpopulation.

As previously stated, the basic household utilizes natural resources such as coal, oil and natural gas to function. This directly results in, “rapid increase in the atmosphere of methane and carbon dioxide, greenhouse gasses” (Dimick 14). The emission of unhealthy gasses such as these affect human health, making” air pollution a significant source of respiratory disease in the world” (Pimentel 18). Environmental contaminants cause up to, “about 20% of the lung cancer deaths in the USA” alone (Pimentel 18). Furthermore, just, “chemical exposure [can] contribute to a variety of serious human diseases” (Pimentel 30). Of these, “about 10 million new cancer cases are diagnosed each year worldwide” primarily pertaining to skin cancer, and “some cancers are linked to the use of polluted water” as well (Pimentel 32). As seen, human needs such as clean oxygen and water are contributing to disease because of overpopulation.

Humans are using up resources at such an alarming rate that studies by the Stockholm Resilience Institute have concluded that “we already have exceeded the institute's boundaries,” “for conditions in which we could live and thrive for generations” (Dimick 25). In other words, humans are evolving into an era where we are “beyond the [expected] boundaries for biodiversity loss, nitrogen pollution, and

climate change” (Dimick 25). As our resources continue to plummet, pollution continues to increase, and safe agricultural methods begin to decrease in usage, our population continues to have a negative effect on the health of humans, availability of clean water and air, arable land, and safe foods. If the same trend continues, these human needs will be risked at the cost of overpopulation.

## References

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