NAME; OMAJUGHO TEMINERE JENNIFER

MATRIC NO; 18/mhs02/147

COURSE GENETICS

ASSIGINMENT

1. Discuss the impacts of human activities on the ecosystem.

[Ecosystem](https://www.conserve-energy-future.com/what-is-an-ecosystem.php) encompasses all living things (animals, plants and microorganisms) and non-living things (earth, climate, soil, sun, weather, and atmosphere). All these components make up the environment and they are critical for the natural and normal functions of all the activities on the planet. In short, they are the foundations of the ecosphere and influence the [health of all the systems on earth](https://www.conserve-energy-future.com/environmental-health-and-its-issues.php).

For example, ecosystems determine the niche played by each and every organism and how they interact with the non-living things such as water, light, air and climate. It’s otherwise said to be an intricate and interconnected system where living and non-living things function.

Various Human Activities That Affect an Ecosystem

1. Agriculture

With the ever increasing number of the [world’s population](https://www.conserve-energy-future.com/causes-effects-solutions-of-overpopulation.php), there is similarly a soaring demand for sufficient food. The population growth rate is hence driving the world to clear forests in order to create more room for agriculture. Based on data by the UN Food and Agriculture Organization (FAO), more than 40% of earth’s surface now supports agriculture, and a bigger fraction of these lands were formerly covered by forests.

* Destruction of wildlife:Forests are critical [habitats for wildlife](https://www.conserve-energy-future.com/30-astounding-ways-to-protect-and-conserve-wildlife.php) and as ecosystems supporting the intricate relationship between living and non-living things, they have been adversely affected by agricultural practices. A larger percentage of Europe, for example, was densely covered with temperate forests but with time it has been cleared to make room for farm land.
* Global warming and climate change*:* Population growth-influenced deforestation is to blame for three billion tons of CO2 released into the atmosphere each year which is equivalent to the destruction of 13 million hectares of land annually as put forward by Union of Concerned Scientists. This rate of [deforestation affects the ecosystem](https://www.conserve-energy-future.com/how-deforestation-affects-climate-change-humans-animals.php) by raising global temperatures and disrupting the cycle of condensation and evaporation. Various ecosystems such as the Polar regions are in turn affected by the rising global temperatures and changes in atmospheric [water cycle](https://www.conserve-energy-future.com/water-cycle.php).
* Aquatic resources degradation*:* The injection of vast amounts of phosphorous and nitrogen nutrients into natural soils, lands and water systems due to fertilizer use have created far-reaching effects, altered ecosystems, and rapidly expanded [aquatic dead zones](https://www.conserve-energy-future.com/causes-and-effects-of-ocean-dead-zones.php).

2. Plastic production

The invention of plastic has created one of the most problematic pollution problem ever witnessed on the face of earth. Waste plastic is everywhere on earth even in the oceans. [Plastics remain in the environment](https://www.conserve-energy-future.com/intriguing-facts-about-plastic-pollution.php) for thousands of years and have long-lasting consequences on the fragile ecosystems and regulatory cycles.

Presently, the world produces nearly 300 million tons of plastics yearly and 20% to 40% of this winds up in the landfills with 10 to 20 million tons finding way into the world’s oceans, interrupting aquatic life. Plastics floating in the world oceans are estimated to amount to 5.2 trillion weighing a total of 268,940 tons based a research study done by World Watch Institute.

The chemicals present in the plastics are released in the waters, interfering with animals endocrine systems and changing their reproduction patterns. They can also cause rapid cell division which may result in cancers. Above all, since the [plastics remain in the oceans](https://www.conserve-energy-future.com/compelling-reasons-why-plastic-bottles-should-be-banned.php) for years and years, they can ultimately reverse ecosystems with damage costs approximated at 13 billion US dollars in a year.

[Wildlife is most affected](https://www.conserve-energy-future.com/30-astounding-ways-to-protect-and-conserve-wildlife.php) and some have even died after consuming unusually great amounts of plastics. A whale found dead in the coast of Scotland in June 2017, for example, had consumed nine pounds of plastic causing blockage in its digestive tract. To make the matters even worse, more than 4,000 cases of fish with plastics in their bodies have been recorded worldwide.

### 3. Emission of Carbon Dioxide and other greenhouse gases

The emission of carbon dioxide and other greenhouse gases namely methane and hydrofluorocarbons (HFCs) are human induced through combustion of [fossil fuels](https://www.conserve-energy-future.com/pros-and-cons-of-fossil-fuels.php) and the use of man-made products. In a bid to generate energy, the world has continued to depend on carbon-rich fossil fuels namely gas, oil and coal.

The combustion of these fossil fuels to produce energy in the years between 1870 and 2013 produced approximately 400 billion tons of carbon dioxide into the atmosphere. Today, carbon dioxide levels are said to be surprisingly higher than ever in history. As a result, global temperatures are in the rise contributing to sea level rise and extreme weather events like heat waves, flooding, tsunamis, and droughts. The sea level rise and extreme weather events have in turn altered ocean and land ecosystems, impacted food chains and [biodiversity](https://www.conserve-energy-future.com/world-most-threatened-biodiversity-hotspots.php), and [intensified desertification](https://www.conserve-energy-future.com/causes-effects-solutions-of-desertification.php).

### 4. Destruction of the reefs

Ocean reefs are the globe’s richest oceanic ecosystems but human activities have led to their destruction by upsetting the natural flow of nutrients and energy that support plant and animal species in the marine world. [Water pollution](https://www.conserve-energy-future.com/critical-and-grievous-diseases-caused-by-water-pollution.php), [climate change](https://www.conserve-energy-future.com/various-climate-change-facts-php.php), [overfishing](https://www.conserve-energy-future.com/causes-effects-solutions-of-overfishing.php) and [acidification of marine waters](https://www.conserve-energy-future.com/causes-effects-solutions-of-ocean-acidification.php) are the repercussions of human activities that have caused the [destruction of coral reefs](https://www.conserve-energy-future.com/25-tremendous-ways-to-save-coral-reefs-from-destruction.php).