Introduction

Veganism is the practice of abstaining from the use of animal products, particularly in diet, and an associated philosophy that rejects the commodity status of animals. A follower of the diet or the philosophy is known as a vegan. Distinctions may be made between several categories of veganism. Veganism is basically a way of life that individuals pursue in order to combat the abusive treatment of animals in the modern meat industry. In recent years, however, we have learned that veganism and vegetarianism alike can do a lot more than just raise awareness for the rights of animals. It has been discovered that the excessive amounts of methane produced in factory farms contribute to global warming. Other notable problems that excessive livestock farming can cause include deforestation, genetic engineering, irrigation problems, pollutants, soil degradation, and waste.

This is where veganism fits into the topic of protecting the environment, as there are multiple issues that derive from the overproduction and overconsumption of meat. Methane is classified as a greenhouse gas, and it traps heat within the atmosphere. This occurs when the methane molecules absorb the UV rays of the sun and keep the heat it produces trapped within the atmosphere. Over time this accumulates enough to cause a significant change in the overall global temperature which negatively affects global climate. These changes in climate then negatively affect ecosystems and species worldwide. A brief example of this is in the Antarctic region, where the melting ice due to increased temperatures has caused significant loss of habitat for the indigenous species there. Average air temperatures in the region have increased by about 5 degrees celsius over the last 100 years. This has been melting the surface ice there and has caused significant problems for the animals that live there.

Definition of Key Terms
Veganism

Veganism is the practice of not consuming or using any animal derived products such as: meat, fish, egg, leather, and cheese.

Vegetarian

Vegetarianism is the practice of not consuming animal meat or by-products of slaughter. However, vegetarian diets can include dairy products and honey.

Livestock

Livestock is farm animals raised to produce labor or products such as: meat, dairy products, fur, and leather.

Global Warming

Global Warming is an increase in global atmospheric temperatures attributed to the greenhouse effect.

Greenhouse Effect

The greenhouse effect is a process caused by certain gasses in the Earth’s atmosphere. These gasses trap the sun's heat and result in the Earth’s warm climate. The primary greenhouse gasses are: carbon dioxide, methane, water vapour, nitrous oxide, and ozone.

Methane

Methane is a greenhouse gas 84 times more potent than carbon dioxide. 27% of global methane emissions can be attributed to livestock farming.

Background Information

Veganism, at its core, aims to combat multiple problems in today’s society concerning the brutal treatment of farm animals, animal rights, and environmental protection. The way veganism fits into environmental protection is through the animals themselves, which then links to the environment through multiple means. resource consumption, air pollution and water pollution are just a few of the problems that veganism combats.
Resource consumption

Everyday the world continuously develops a demand for meat as both its popularity and the human population continues to grow. Countries and companies worldwide are clearing large chunks of land in order to make farms for the animals required to provide for the demand, as well as raise the crops to feed these animals. Locations such as the tropical rainforests in Brazil, or the pine forests in China are being cleared to make room for these farms. It is estimated by the Smithsonian Institution that around seven football fields (640.08 meters) worth of land is cleared every minute to make room for agricultural and farmland. Around 80% of all agricultural land in the U.S is used to raise farm animals for human consumption and the food that it takes to feed them. A pig, for example, is required on average to grow from 100 pounds to 240 pounds, and to feed this pig consumes about 500 pounds of grain, corn and soybeans every year. This amount adds up to tens of millions when all pigs across the country are taken into account.

Cattle, chickens, pigs and other farm animals are the main consumers of water in the United States, with a single pig consuming up to 21 gallons of drinking water everyday and a cow reaching upwards of 50 gallons. To put things in perspective, it takes 2,400 gallons of water to produce 1 pound of cow meat, and it takes 180 gallons to produce 1 pound of whole wheat flour.

Air pollution

Carbon dioxide, methane and nitrous oxide are some of the particles which cause the vast majority of global warming. The production of 2 pounds of beef causes more emissions than driving a car for 3 hours, and also uses more energy than leaving your house lights on for the same amount of time. The U.N has placed veganism on a global scale as one of the steps required to combat the growing issue of climate change, which in turn helps the environment.

Factory farms also produce massive amounts of dust particles which contaminate the air in the immediate and surrounding areas. A Texas study found that the feedlots for farm animals in the entire state produce about 7,000 tons of dust particles every year. That same dust contains biologically active organisms such as mold, fungi and bacteria which are all harmful if inhaled by both animals and humans. Cesspools containing urine and feces mixtures are liquified if they already were not and then sprayed into the air to circumvent state water pollution limits. The vapors are then transported into the surrounding areas by the wind and inhaled by nearby individuals. This has many negative effects on an individual's health such as inflammatory, immune and neurochemical problems. The Environmental Protection Agency (EPA) in the U.S reported that around 80% of all ammonia emissions in the country are derived from animal waste.
**Water pollution**

Factory farms produce billions of pounds of animal manure which ultimately end up in lakes, rivers, and sources of fresh drinking water. The waste produced yearly ends up running off into waterways containing deadly microbes and bacteria. Waste that ends up on crops and in pits can seep into potential groundwater reservoirs and contaminate them, putting individuals who rely on these sources of water in great risk. The EPA reports that agricultural runoff is the main source of waterway pollution in the U.S.

The runoff does not only harm U.S citizens though. The waste that ends up in the Mississippi River deposits in the Gulf of Mexico which carries waste to the eastern shores of Mexico and northern Cuba. Nitrogen from the animal feces and plant fertilizer also speeds up algae production in these bodies of water which then use up so much oxygen in the water, killing all other life forms. The National Oceanic and Atmospheric Administration reported in 2006 that the deadzone in the gulf of mexico was half the size of Maryland due to excessive amounts of algae in the area.

**Major Countries and Organizations Involved**

**Canada**

The Canadian government recently updated the nation’s food guide at the start of 2019, with an emphasis on a plant-based protein diet, almost completely eliminating dairy. The 2018 food guide recommended that individuals consume about four servings of dairy a day, however, the new guide now recommends one daily pint of milk. Western provinces known for prairies - Alberta, Saskatchewan and Manitoba- are home to the Protein Industries Supercluster. The non-profit organization aims to process peas to replace meat based sources of proteins. The Canadian government has invested 153 million dollars in the project.

**New Zealand**

While New Zealand is known for its dairy industry- with the country having more cows than people- the parliament has begun talking about the environment a lot lately. The Ministry of Health reported in August of 2019 that the entire health sector should adopt “plant-forward” menus to cut carbon emissions, seeing as agriculture accounts for about 49% of the country’s GHG emissions.

**PETA**

People for the Ethical Treatment of Animals or PETA is one of the largest animal rights organization in the world, with around 6.5 million members and supporters worldwide. They focus on
mistreatment of animals in labs, the food industry, clothing and domestic pets. They operate through public education (especially the promotion of veganism), cruelty investigations, research and animal rescue just to name a few, however some of their methods are quite radical and questionable.

**Netherlands**

Studies conducted by market researcher IRI Netherlands discovered that vegan food sales have increased by 51% since 2017. Jumbo and Albert Heijn, the two biggest supermarket chains in the country, have increased the amount of plant-based offerings in their stores nationwide. There are also home-grown brands such as Vivera and The Vegan Butcher who have started gaining international traction due to the increased demand. One of the leading meat brands in the country, Bolscher, plans to launch a plant-based range of meats.

**Timeline of Events**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of event</th>
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<tbody>
<tr>
<td>1847</td>
<td>The first vegetarian society was formed</td>
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<tr>
<td>1850</td>
<td>Sylvester Graham co-founded the American Vegetarian society</td>
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<tr>
<td>November, 1944</td>
<td>Donald Watson creates the term “Vegan”</td>
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<tr>
<td>November, 1944</td>
<td>The Vegan Society was founded</td>
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<td>January, 2018</td>
<td>London’s first fully vegan pub is opened</td>
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<tr>
<td>February, 2018</td>
<td>City Spice restaurant overhauled its menu to be more vegan friendly</td>
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<tr>
<td>April, 2018</td>
<td>Camden became home to London’s first vegan diner</td>
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<tr>
<td>July, 2018</td>
<td>Honest Burgers started serving vegan burgers</td>
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<tr>
<td>October, 2018</td>
<td>CookDaily reopens in Hackney</td>
</tr>
<tr>
<td>December, 2018</td>
<td>Hackney Downs Vegan Market had a complete vegan celebration</td>
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Previous Attempts to solve the Issue

Peta

Peta works in many ways to raise awareness regarding the issue of veganism and its role in protecting the environment. They have the backing of famous celebrities, host protests, educate people etc. They even take direct action against corporations who pose a problem to the environment such as farms that raise cattle and other animals for consumption and also pollute the environment.

Possible Solutions

The most obvious course of action in this instance is of course to go vegan yourself. It is not an easy process however it can be done with the proper preparation and expectations. This, of course, can then be used to help encourage this initiative in member states.

Pacing

Not everyone can go vegan overnight, so it is important to move at a comfortable pace. Just like adjusting any other aspect of your life, it takes time and experimentation to see what works best. The best way to start is by making small changes to everyday meals. In one week try removing meat or dairy from your diet by slowly cutting down the amount you consume each day gradually until you completely cut it out. Another alternative is to try replacing regular meals with vegan meals each week. On the first week have a vegan breakfast with everything else normal, and on the second week have both vegan breakfasts and vegan lunches, following up with vegan dinners next week.

Getting the essentials

It is important to make sure that you receive all the essential nutrients while in the process of converting your diet to a vegan one. Be sure to find suitable substitutes to nutrients you would normally get from non vegan foods. For protein, substitutes such as beans, chickpeas, tofu, edamame, beans and lentils are all great sources of protein.

Keep things fresh

Going vegan is a good opportunity to try new foods and broaden your cravings. Trying new foods keeps the experience fresh and intriguing, and helps to keep you driven whenever you discover something new that you like.
Bibliography


Lowry, Brad. “&nbsp;Veganism &amp; The Environment: by the Numbers.” Veganism &amp; the Environment By the Numbers Infographic, www.culinaryschools.org/yum/vegetables/.

Smith, Kat. “These 4 Countries Just Formed the Vegan World Alliance.” LIVEKINDLY, Publisher Name LIVEKINDLY Publisher Logo, 10 Sept. 2019, www.livekindly.co/countries-formed-vegan-world-alliance/.
