Committee: Environment

Topic: The question of reducing the consumption of meat in protecting the environment

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Summary

Throughout the world, there are countless debates on the ethics of meat consumption, which meats are okay to eat and which are not, but while health, religion and ethics take center stage on the discourse surrounding meat consumption, what often gets disregarded despite the factual and scientific basis is the negative environmental effect meat consumption has on the environment. With the effects of land use change and the emissions beef and sheep farming cause in particular, it is no longer something the United Nations should ignore if they intend on taking the problem of climate change seriously.

Definition of Key Terms

Emissions - the production and discharge of something, especially gas or radiation.

Land use change - the conversion of a piece of land's use by humans, from one purpose to another.

Climate change - change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

Disparity- A great difference

Enteric fermentation- fermentation that takes place in the digestive systems of animals

Desertification- the process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture.

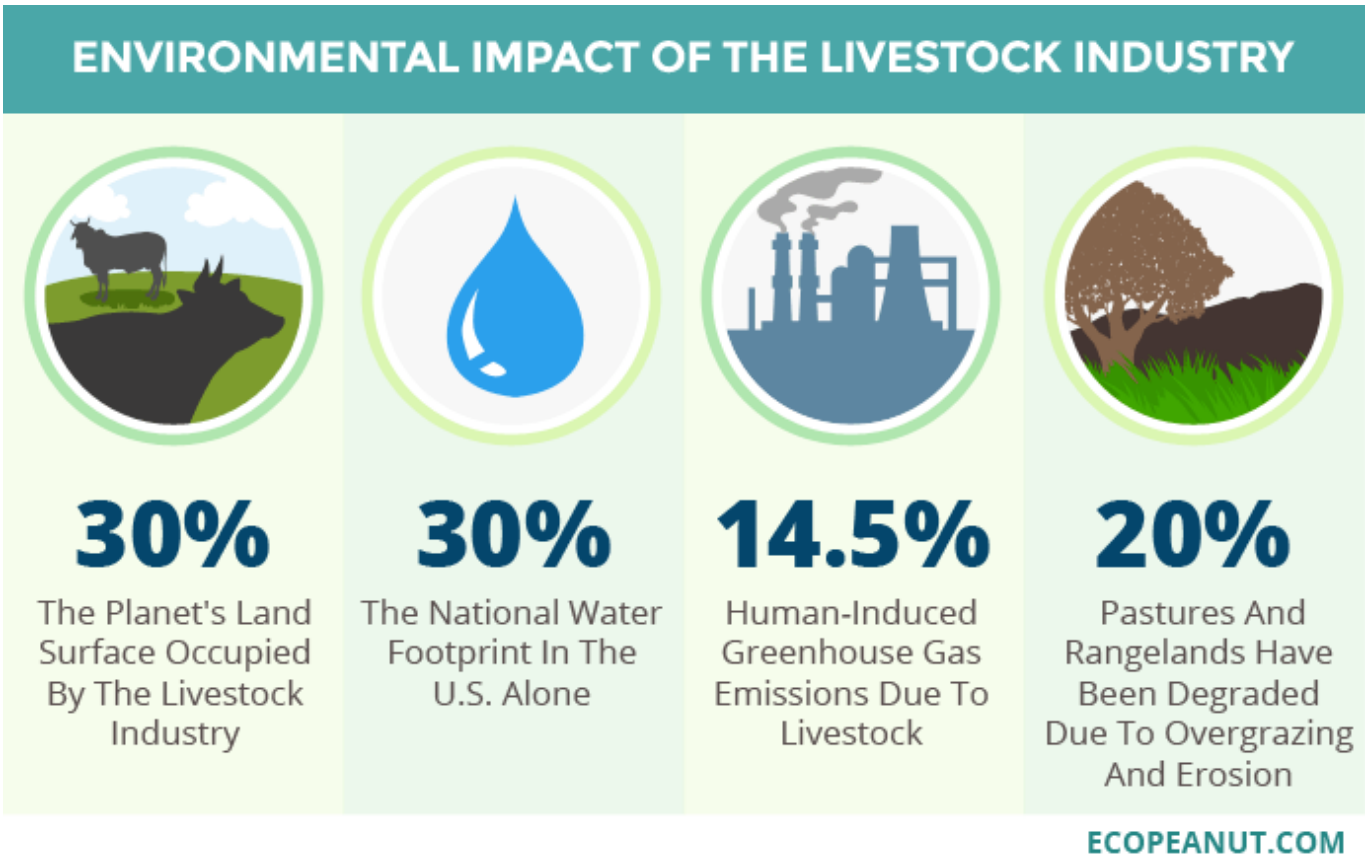
Background Information

According to statistics gathered by the Humane Society of the United States, meat consumption in the US alone has increased from 144 pounds annually per person in 1950 to 222 pounds in 2007. With the increasing affluence of countries around the world comes a rise in population and urbanization causing consumption increases. Further increasing the damage done by animal products.

While the distribution and the animal feed to supply and create animal products has a negative impact on the environment the real disparity in the effect of food on global warming comes from land use change and the farming process. In terms of the farming process, cow and sheep products have the worst effect on global warming. The animals' stomachs are microbe rich and partake in enteric fermentation which creates methane. Methane is the second most emitted greenhouse gas but traps far more heat than Carbon dioxide. Over 100 years the global warming potential for methane is 21 times higher than Carbon dioxide. This process of enteric fermentation – due to the scale of the meat industry and the sheer number of animals being bred for livestock – accounts for 27% of human related methane emissions.

Additionally, land use change has its negative effects. In comparison to crops grazing plants take up far more space, the meat industries need to make room for cattle ranching is the sole cause for 80% of deforestation in the Amazon rainforest. Of course, it is also important to recognize that due to the highly diversified nature of the food industry various food processing, handling and packaging operations create wastes of different quality and quantity, those of which, if not treated, could lead to increasing disposal problems and severe pollution problems. Additionally, to contributing to global warming, changes in the global climate are likely to influence agriculture, including meat production, and may cause a shift in crop production and grazing areas and already have begun to do so. With the regional contamination of soil and water – happening all around the world, and the destruction of vegetation and desertification in dry or cold regions.

2021 has been expected to see the largest consumption of meat, then ever before. The United Nations Food and Agriculture Organization projects that global meat consumption will rise by more than 1% this year. The fastest growth will occur in low- and middle-income countries, where incomes are steadily climbing - generating more greenhouse gas emissions global emissions from food production are expected to rise 60% by 2050, in large part because of increased livestock production.


ENVIRONMENTAL IMPACT OF THE LIVESTOCK INDUSTRY
30%
The Planet's Land Surface Occupied By The Livestock Industry
30%
The National Water Footprint In The U.S. Alone
14.5%
Human-Induced Greenhouse Gas Emissions Due To Livestock
20%
Pastures And Rangelands Have Been Degraded Due To Overgrazing And Erosion
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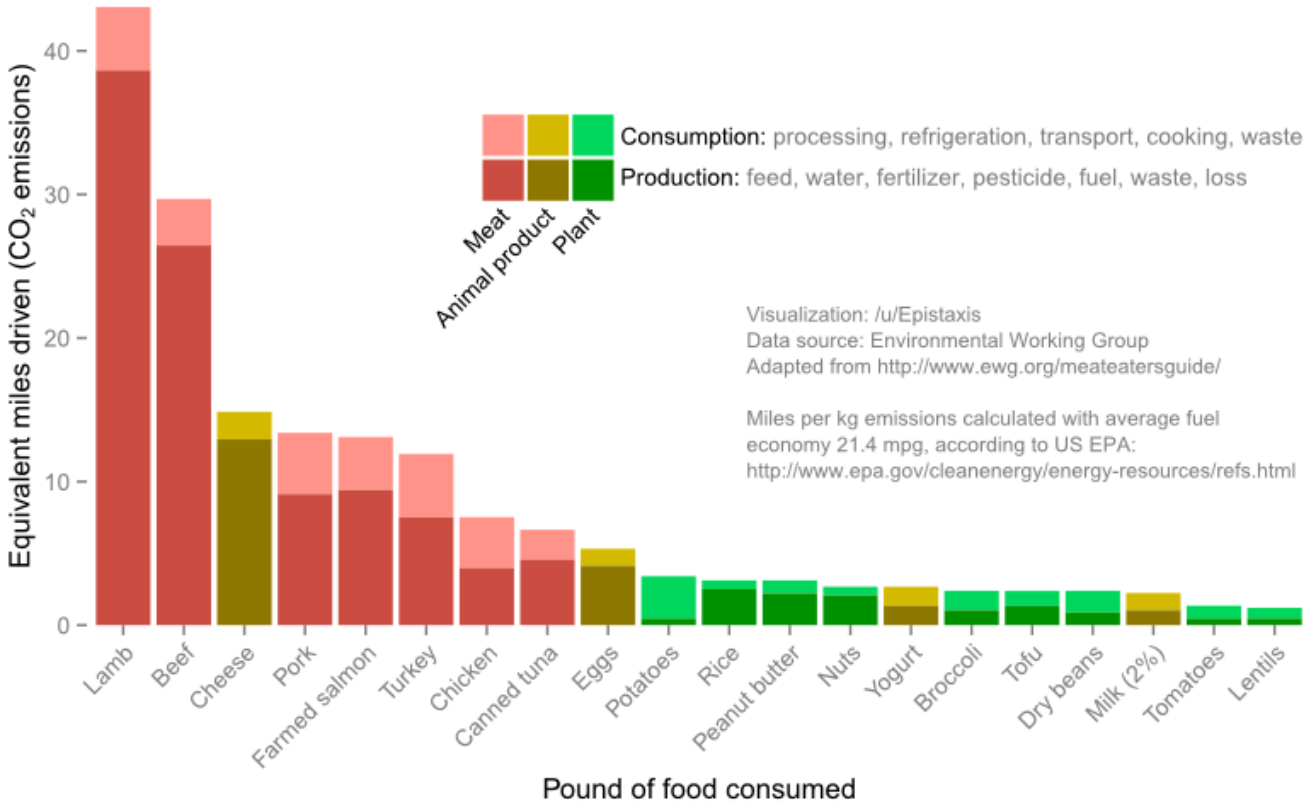
Equivalent miles driven (CO_2 emissions)
0
10
20
30
40
Consumption: processing, refrigeration, transport, cooking, waste
Production: feed, water, fertilizer, pesticide, fuel, waste, loss
Meat
Animal product
Plant
Visualization: /u/Epistaxis
Data source: Environmental Working Group
Adapted from http://www.ewg.org/meateatersguide/
Miles per kg emissions calculated with average fuel economy 21.4 mpg, according to US EPA: http://www.epa.gov/cleanenergy/energy-resources/refs.html
Lamb
Beef
Cheese
Pork
Farmed salmon
Turkey
Chicken
Canned tuna
Eggs
Potatoes
Rice
Peanut butter
Nuts
Yogurt
Broccoli
Tofu
Dry beans
Milk (2%)
Tomatoes
Lentils
Pound of food consumed

Major Countries and Organizations Involved

China announced in 2016 a plan to reduce meat consumption by 50% in the country and urged its citizens to limit their meat intake to 40 to 75 grams a day. This in particular has a great effect as apart from reducing carbon emissions, water consumption and the risk of zoonotic pathogens entering the human population, switching to plant-based protein can help safeguard rain forests cleared for the cultivation of animal feed and protect people against the heart disease, cancer and diabetes.

United Kingdom and in particular, England's latest National Food Strategy advises the public to reduce meat consumption by 30% within 10 years. Claiming their current “appetite for meat is unsustainable”. According to the report's findings, 85% of farmland is used to feed livestock, but animal protein only provides 32% of the calories consumed. The UK’s motives like China largely focus on the health benefit for citizens, not the environmental benefits.

The European Union has been particularly stubborn in not changing the consumption of meat. Despite the calculated necessity to reduce meat consumption by 71% less meat by 2030, the EU have stated "We will not **reduce consumption**, no to imported products". Hopefully individual nations within the EU will make active change within the conference.

USA, is one of the worst countries for meat consumption, the average person consuming over 100kg of meat a year. 45% of the total land mass in the U.S is used for livestock. About 260 million acres of U.S. forest have been cleared to create cropland to produce feed for animals raised for food. The meat industry is also directly responsible for 85 percent of all soil erosion in the U.S. 80 % of the corn the US grows and more than 95 percent of the oats are fed to livestock- which could be used to fed people.

Argentina has a strong meat culture. An argentine consumes on average 86.1 kg per year and is the second highest consumer of beef and veal after Uruguay.

Australia, meat consumption has increased from 93 kg per person to 94.8 kg, the OECD says. Australians also consume far more lamb than their American counterparts – eating an average of 8.6 kg per versus 0.4 kg in the United States.

Timeline of Events

1905

Livestock quarantine act is passed in the USA,

1913

June 21, in NP: Terms of the federal food and drugs act were extended to allow more effective supervision over meat products after they leave a packer's hands and are in distributing and retail channels.

1939

American Association of Meat Processors founded.

Relevant UN Treaties and Events

International Convention concerning the Export and Import of Animal Products (other than Meat, Meat Preparations, Fresh Animal Products, Milk and Milk Products) - Geneva 20 February 1935. In regards to animal rights and limiting the import and export of animal products specifically in regards to the risk of disease there is from not being weary of sales.

The list of UN treaties and events regarding the meat industry alone is scarce this list is further narrowed down when taking into account the effect the meat industry is having on the environment.

Possible Solutions

The UN's Food and Agricultural Organization (FAO) recommends five actions to move towards sustainable meat production

1. Boosting efficiency of livestock production and resource use
2. Intensifying recycling efforts and minimizing losses for a circular bio-economy,
3. Capitalizing on nature-based solutions to ramp up carbon offsets,
4. Striving for healthy, sustainable diets and accounting for protein alternatives,
5. Developing policy measures to drive change.'

Policy interventions are key to successfully implementing change and the complete lack of them in the meat industry is very concerning. Despite this changes like that of dietary guides in China are a good start.

Additionally, implementing restrictions to the type of meat sold such as restricting buyers to graze fed beef. Cattle that graze require less water and fuel in their production. They are also more resistant to bacteria. Lowering the amount of meat consumed is also the theoretically simplest but also most controversial solution.

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