



The Hague International Model United Nations

Forum: EVC2

Issue: Promoting vegetarianism as a means of reducing carbon footprint

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Introduction

Globally, agriculture contributes significantly to greenhouse gas emissions, accounting for approximately 11% of global emissions, with livestock alone responsible for nearly 14.5%. These emissions arise from methane released during digestion in ruminants, deforestation for grazing land, and energy-intensive feed production. As the global population grows and dietary habits shift towards higher meat consumption, the environmental burden of animal agriculture intensifies. In the context of combating climate change, promoting vegetarianism has emerged as a critical strategy to reduce carbon footprints, aligning with international climate goals such as the Paris Agreement and the Sustainable Development Goals.

A transition toward plant-based diets offers immense potential for emissions reduction while simultaneously addressing issues of resource inefficiency, food security, and biodiversity loss. Plant-based diets have a lower carbon footprint and require significantly less land and water compared to meat-heavy diets. These benefits have been highlighted in recent United Nations reports and campaigns, which advocate for a reduction in meat consumption as a crucial component of sustainable living. Despite this, the implementation of plant-based diets on a global scale faces challenges, including cultural norms, economic barriers, and limited awareness about the environmental impact of dietary choices.

This topic explores the opportunities and challenges associated with promoting vegetarianism as a means to combat climate change. Delegates will examine the role of policy, education, and international cooperation in encouraging sustainable dietary practices. Additionally, discussions will explore the intersection of environmental sustainability with socioeconomic considerations,

such as ensuring equitable access to plant-based foods and addressing the livelihoods of those dependent on animal agriculture.

In addressing this issue, it is essential to adopt a holistic approach that encompasses environmental, economic, and social dimensions. This research seeks to provide a comprehensive understanding of the problem, propose actionable solutions, and evaluate their potential for long-term success. Through thoughtful deliberation and collaboration, the international community has the opportunity to make meaningful progress in reducing the carbon footprint of global food systems.

Definition of Key Terms

Vegetarianism

A dietary practice that excludes meat, poultry, and fish, focusing on plant-based foods such as vegetables, fruits, grains, legumes, and nuts. Some forms of vegetarianism include eggs and dairy products (lacto-ovo vegetarianism).

Carbon Footprint

The total amount of greenhouse gases (primarily carbon dioxide, methane, and nitrous oxide) emitted directly or indirectly by human activities, expressed in carbon dioxide equivalents (CO₂e). In this context, it refers to emissions associated with food production, processing, transportation, and consumption.

Plant-Based Diet

A diet predominantly based on foods derived from plants, including vegetables, grains, nuts, seeds, legumes, and fruits, with minimal or no consumption of animal products.

Greenhouse Gases (GHGs)

Gases in the atmosphere, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), that trap heat and contribute to global warming. Livestock farming is a significant source of methane and nitrous oxide emissions.

The Natural Greenhouse Effect

A natural process in which certain gases in Earth's atmosphere, such as carbon dioxide (CO₂), methane (CH₄), and water vapour (H₂O), trap heat radiated from the Earth's surface, maintaining temperatures that support life. This effect is distinct from the enhanced greenhouse

effect caused by human activities, which amplifies this natural warming and leads to global climate change.

Livestock Farming

The breeding and raising of animals for food, fibre, or labour. This sector contributes significantly to deforestation, water usage, and greenhouse gas emissions.

Resource Efficiency

The effective use of natural resources such as land, water, and energy.

Climate Mitigation

Actions taken to reduce or prevent the emission of greenhouse gases. Promoting vegetarianism is considered a climate mitigation strategy due to its potential to lower emissions from food systems.

Cultural Dietary Preferences

Dietary habits influenced by cultural, religious, and societal factors. These preferences play a critical role in the feasibility and acceptance of promoting vegetarianism globally.

Food Systems

The interconnected processes involved in producing, processing, distributing, consuming, and disposing of food. Food systems are a major driver of environmental change, with plant-based systems offering more sustainable alternatives.

Background Information

Origins and Context

Food production is a major driver of climate change. Agriculture contributes around 11% of global greenhouse gas (GHG) emissions, while livestock farming specifically accounts for nearly 14.5% of human-caused emissions. These emissions stem from methane produced by ruminants, land-use changes (such as deforestation), and energy-intensive feed production. Beyond emissions, meat production exerts immense pressure on resources, with 1 kilogram of beef requiring about 15,000 litres of water to produce. This has led to significant

environmental degradation, including biodiversity loss and deforestation in areas such as the Amazon Rainforest. Promoting vegetarianism aligns with the broader goal of sustainable food systems, which aim to mitigate environmental harm while meeting nutritional needs. Shifting dietary patterns could reduce food-related GHG emissions by up to 70% globally, highlighting the potential of vegetarian diets as a climate solution.

Major Developments

Several key developments have strengthened efforts to promote vegetarianism:

Policy Advocacy:

Proposals for taxing meat to reflect its environmental cost have emerged as a potential lever for dietary change. For instance, Sweden and the Netherlands have debated implementing these taxes

Technological Innovations:

Companies developing plant-based proteins have made vegetarianism more accessible by creating alternatives that mimic the taste and texture of meat. This has helped overcome cultural resistance to dietary change.

Public Awareness:

Documentaries like *Cowspiracy* and campaigns by organisations like Greenpeace and the United Nations have increased public awareness about the environmental and ethical implications of meat consumption.

Challenges and Ongoing Issues

Despite these successes, barriers remain. Cultural and economic factors influence dietary choices, making global adoption of vegetarianism complex. In developing countries, meat consumption is often associated with social status and nutrition, complicating efforts to promote plant-based diets. Additionally, resource-intensive crops such as almonds

and avocados highlight that not all plant-based foods are equally sustainable. Moreover, livestock farming supports millions of livelihoods, particularly in rural areas. A transition to vegetarian diets must address these economic dependencies while ensuring equitable access to plant-based foods.

Major Countries and Organisations Involved

UNFCCC (United Nations Framework Convention on Climate Change)

The UNFCCC has consistently emphasised the need for sustainable food systems as part of global climate strategies. During COP26 and COP27, dialogues focused on reducing the carbon footprint of agriculture, with a notable emphasis on plant-based diets. While specific resolutions advocating vegetarianism have not been adopted, the UNFCCC recognises the importance of dietary shifts in achieving Nationally Determined Contributions (NDCs) under the Paris Agreement.

UNEP (United Nations Environment Programme)

The UNEP has championed campaigns like ActNow, encouraging individuals to adopt sustainable lifestyle practices, including plant-based diets. UNEP's Emissions Gap Reports highlight dietary changes as critical for reducing GHG emissions by 2030, supporting the broader goals of global warming mitigation.

FAO (Food and Agriculture Organisation)

The FAO has extensively documented the environmental impacts of livestock farming through reports like *Livestock's Long Shadow* (2006) and subsequent studies. These reports advocate for diversifying protein sources and promoting plant-based alternatives to meet global food demands sustainably.

IPCC (Intergovernmental Panel on Climate Change)

The IPCC's reports consistently highlight the environmental benefits of plant-based diets. The Special Report on Climate Change and Land (2019) explicitly links

reduced meat consumption to significant potential reductions in GHG emissions.

European Union

The EU integrates plant-based diets into its broader sustainability strategy through the Green Deal and the Farm to Fork Strategy. Member states have supported national campaigns promoting plant-rich diets.

United States

The U.S. has made strides in supporting plant-based alternatives through federal research into sustainable protein sources. Several state-level policies, including plant-based school meal programs, signal a shift toward reducing reliance on meat-heavy diets. The U.S. has also seen significant market growth in plant-based alternatives, supported by private-sector innovation. However, the country's national policy on plant-based eating remains fragmented across states and lacks the kind of broad, unified federal policy seen in some European countries

India

Cultural vegetarianism has positioned India as a low per-capita meat consumer globally. However, increasing urbanisation has led to higher meat demand. India's policies support sustainable agriculture and encourage plant-based diets, but affordability and diversity remain critical challenges.

China

China's government launched a nationwide campaign in 2016 to reduce meat consumption by 50% by 2030, aligning dietary changes with health and environmental goals. This policy reflects China's broader strategy to combat climate change.

Brazil

Brazil faces a dual challenge of being a major meat exporter while confronting

deforestation linked to livestock farming. While it has not formally endorsed plant-based diets, localised initiatives and international pressure have begun fostering dialogue about sustainable food systems.

United Kingdom

The UK has introduced plant-based dietary recommendations into its national food strategy, promoting vegetarianism as part of a sustainable future. Campaigns like Veganuary and incentives for plant-based product development reflect growing support for dietary transitions.

Denmark

Denmark has emerged as a leader in promoting plant-based diets as part of its national climate strategy. The Danish government has committed to reducing carbon emissions across all sectors, including agriculture. The country's dietary guidelines actively encourage a shift towards plant-based foods, with recommendations aimed at reducing meat consumption and increasing plant-based alternatives. Denmark is also known for supporting local agricultural initiatives that focus on sustainable plant-based food production. In 2021, Denmark became the first country to set a legally binding goal to cut greenhouse gas emissions by 70% by 2030, which includes reducing emissions from livestock and promoting plant-based diets.

Germany

Germany has taken a progressive stance in promoting plant-based eating within the context of environmental sustainability. The country's Green Deal, adopted as part of its efforts to achieve carbon neutrality by 2050, includes a strong focus on the food sector. German policies actively support plant-based agriculture, with an emphasis on reducing meat consumption and expanding the availability of plant-based products. Germany has seen significant growth in plant-based food consumption, partly due to public campaigns that encourage sustainable eating habits. Germany's federal government has also supported the implementation of plant-based food options in schools and public institutions. Additionally, in 2020, Germany introduced new environmental guidelines that recommend reducing the environmental impact of food systems by focusing on plant-based protein alternatives.

Timeline of Events

Date	Description of event
December 12 th , 2015	Adoption of the Paris Agreement at COP21 The Paris Agreement set a global framework to limit global warming to below 2°C, with a goal to reduce emissions from all sectors, including agriculture. The agreement implicitly supports the transition to plant-based diets as part of efforts to reduce carbon emissions and mitigate climate change.
August 8 th , 2019	IPCC Special Report on Climate Change and Land The IPCC's <i>Special Report on Climate Change and Land</i> highlighted that adopting plant-based diets can play a significant role in mitigating climate change, estimating that reducing global meat consumption could lower agricultural emissions by up to 20% by 2050.
September 25, 2019	United Nations Adoption of the SDGs The United Nations formally adopted the 2030 Agenda for Sustainable Development, including the 17 Sustainable Development Goals (SDGs), many of which relate to promoting sustainable food systems. SDG 2 (Zero Hunger) and SDG 12 (Responsible Consumption and Production) were particularly relevant in advocating for dietary changes that promote sustainability.
December 2019	European Green Deal The European Union launched the European Green Deal, a comprehensive roadmap to reduce net greenhouse gas emissions by 55% by 2030 and achieve carbon neutrality by 2050. The Green Deal recognises the importance of sustainable food systems, and there is growing attention to plant-based diets as part of this initiative to lower agricultural emissions.
October 31, 2021	COP26 Climate Summit and Discussions on Food Systems At COP26, global leaders discussed the importance of transforming food systems to reduce agricultural emissions. Plant-based diets were highlighted as a key strategy for achieving climate goals, with commitments made to reduce emissions from food production by promoting sustainable dietary changes.
December 1, 2021	UN Food Systems Summit Outcome The UN Food Systems Summit took place, where global leaders and experts discussed the urgent need to transform food systems to be more sustainable. The summit explicitly endorsed plant-based diets as essential for reducing the environmental impact of food systems, aiming to decrease greenhouse gas emissions and improve food security.
April 6, 2022	UN Report on the Global Warming Potential of Livestock Production A report released by the United Nations emphasised that the livestock sector contributes significantly to global warming, responsible for up to 14.5% of global greenhouse gas emissions. The report called for policies that encourage plant-based diets to reduce emissions from agriculture.

- 2022 **Launch of the UN Decade of Action for Sustainable Development**
The United Nations launched the Decade of Action to accelerate the implementation of the Sustainable Development Goals (SDGs). Within this context, the Decade of Action emphasises the transformation of food systems as a critical component for achieving goals like ending hunger, promoting health, and addressing climate change and carbon footprint.
- January 2023 **European Union's Farm to Fork Strategy Updates**
The European Union updated its Farm to Fork Strategy, which aims to create a sustainable food system within Europe by promoting plant-based foods, reducing the environmental impact of food production, and encouraging the reduction of animal-based food consumption.
- November 2023 **COP28**
At COP28, a significant portion of the program was dedicated to food system transformation, marking a historic moment where the global community addressed the importance of plant-based food systems. ProVeg, an organisation that promotes plant-based nutrition, participated in the conference, emphasising the dual benefits of plant-rich diets for both climate and public health. This provided an important opportunity to influence policymakers on transitioning to more sustainable, plant-based food systems.

Previous Attempts to solve the Issue

Several international bodies and efforts have sought to address the issue of food-related carbon emissions, with a focus on promoting more sustainable diets, including vegetarianism and plant-based nutrition. However, while these attempts have made some progress, challenges persist in shifting global dietary patterns to reduce the carbon footprint of food production. Below are some notable previous attempts.

United Nations Efforts

United Nations Food Systems Summit (2021)

The UN Food Systems Summit, held in 2021, called for the transformation of global food systems, emphasising the role of plant-based diets in reducing greenhouse gas emissions. It focused on the need for sustainable production and consumption patterns and promoted plant-based solutions as part of the climate change mitigation strategy. However, the summit's impact has been somewhat limited, as it mainly acted as a platform for dialogue rather than producing binding commitments from major food-producing nations. Despite this, the event was a step forward in placing food systems transformation on the global policy agenda.

IPCC Special Report on Climate Change and Land (2019)

The IPCC Special Report on Climate Change and Land (2019) highlighted the significant role of agriculture, particularly livestock, in driving climate change. It recommended dietary changes, such as a reduction in meat consumption and a shift towards plant-based diets, as one of the most effective ways to mitigate climate impacts.

While the report was groundbreaking, the global transition to plant-based diets has been slower than expected due to entrenched agricultural industries and cultural preferences for animal-based foods.

Regional Efforts

European Green Deal (2019)

The European Green Deal, adopted by the European Commission in 2019, set ambitious climate targets, including achieving carbon neutrality by 2050. A key component of the deal was the Farm to Fork Strategy, which aims to make food systems fair, healthy, and environmentally-friendly. It encourages the reduction of meat consumption and promotes sustainable plant-based food systems.

UK National Food Strategy (2020)

In 2020, the UK government published its National Food Strategy, recommending a shift towards plant-based diets to reduce the environmental impact of food systems. It called for reduced meat and dairy consumption and a focus on healthier, plant-based alternatives. Despite widespread support for these recommendations, the strategy's impact has been limited by political pushback from the agricultural industry and concerns about food security.

Possible Solutions

Incentivising Plant-Based Diets through Economic and Policy Measures

Explanation:

Governments can introduce subsidies, tax incentives, or financial support to promote plant-based alternatives and sustainable agricultural practices. Reducing subsidies for the livestock industry and redirecting them to plant-based food production can create a more level playing field and encourage consumers to choose environmentally friendly options.

Example:

Countries such as Denmark have introduced taxes on red meat and subsidies for plant-based foods, encouraging more sustainable diets. The European Union's Farm to Fork Strategy also aims to ensure that food systems become more sustainable, which includes promoting plant-based diets.

Workable Actions:

- Establish tax incentives for plant-based food products.
- Create subsidies for farmers transitioning from animal-based to plant-based agriculture.
- Implement carbon taxes on high-emission foods, such as beef and lamb, to encourage sustainable alternatives.

Creating Urban and Local Food Systems that Support Plant-Based Diets

Explanation:

Building local food systems that prioritise plant-based agriculture can reduce emissions from food transportation, enhance food security, and support sustainable livelihoods. Encouraging urban farming and vertical agriculture could allow cities to grow more plant-based foods locally, reducing their carbon footprints and making plant-based options more readily available.

Example:

Cities such as Amsterdam and New York have developed initiatives that promote urban agriculture, including rooftop farms and community gardens. Local food initiatives, such as farmer's markets, can make plant-based foods more accessible and reduce food miles, further lowering emissions.

Workable Actions:

- Support urban agriculture projects focused on growing plant-based foods.
- Invest in infrastructure for local food production, such as greenhouses and vertical farms.
- Encourage policies that allow urban areas to become self-sufficient in plant-based food production.

Educational Campaigns and Public Awareness

Explanation:

Raising awareness about the environmental impact of meat consumption is key to influencing dietary habits. Educational campaigns can inform consumers about the health and environmental benefits of plant-based eating. These campaigns should be tailored to different cultural contexts, using local influencers and trusted sources to increase their effectiveness.

Example:

The “Planetary Health Diet” promoted by the EAT Foundation, which encourages the adoption of more plant-based foods for better health and a reduced environmental footprint. This campaign, alongside others like Meatless Monday, works by educating people on the environmental costs of meat production and the benefits of a plant-based diet.

Workable Actions:

- Launch global educational campaigns about the climate impact of food choices.
- Introduce plant-based meal options in schools and universities to encourage young people to adopt sustainable eating habits.

Encouraging the Food Industry to Develop Plant-Based Alternatives

Explanation:

The food industry plays a significant role in shaping consumer diets. Encouraging the development and promotion of plant-based alternatives can help make these products more accessible and desirable to consumers. Supporting innovation in plant-based food technology, such as lab-grown meat and plant-based protein, could help replace traditional animal-based products.

Example:

Companies like Beyond Meat and Impossible Foods have successfully created plant-based versions of traditional meat products, which have gained popularity globally. Additionally, food companies are increasingly offering plant-based menu options in restaurants and fast-food chains to cater to growing consumer demand.

Workable Actions:

- Provide research and development grants to companies creating sustainable, plant-based food alternatives.
- Encourage large retailers and fast food chains to offer more plant-based options on their menus.
- Support the development of lab-grown meats and plant-based protein products to further reduce reliance on animal agriculture.

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