Forum: Environmental Commission (EC)

Issue: Mitigating the Impact of Overpopulation on Sustainability

Student Officer: Foteini Gnardelli

Position: Deputy President

PERSONAL INTRODUCTION

Dear Delegates,

My name is Foteini Gnardelli, I am an IB1 student studying at Pierce- American College of Greece and it is my great honor to serve as a Student Officer in the Environmental Commission for the 2023 PSMUN.

The aim of the Environmental Committee is to form resolutions that are based on the overall better implication of sustainable livelihood to the world and improvement of climate change. The topic I will discuss throughout this guide is mitigating the impact of overpopulation on sustainability. It is one of the most significant since it is constructed with issues that are of recent developments; therefore, it is of utmost importance that it is discussed and debated. This guide is one source for you to use, however, you are expected to further extend your knowledge and do more thorough research on this topic as well as learn about your assigned country's stance on the issue.

If you have any questions please don't hesitate to contact me via email at: fotini.gnardelli67@gmail.com. I am open to any and all questions regarding either the topic, the committee as a whole, or procedural matters that may arise.

I look forward to meeting you all!

Best regards,

Foteini Gnardelli



INTRODUCTION

The impact of overpopulation on sustainability is a topic of great significance and relevance since the overall population of the planet has recently reached 8 billion. Overpopulation has been an issue for the past couple of years and has had a massive influence on how the world functions. As the population rises, even more consequences arise on numerous aspects concerning the sustainability of the planet.

Rises in population have been documented to occur since the Industrial Revolution when the world was rapidly developing. A reason for which overpopulation has been something affecting the world is because of achievements in the medical sector. Before the development of science and disease prevention medicines, the population often suffered from numerous illnesses that could not be cured in any way and would ultimately end up in the death of the infected victims. New deadly viruses are still a phenomenon in more recent years, the most current example being the Flu Pandemic with a death toll of around 50 million and 500 million infected¹. For the first few years after the virus is detected, until a vaccination is found, viruses have an influence on the population, creating a massive decline in the population due to the lack of a cure for the infected, hence, the virus spreads easily. The latest virus infecting the planet for the past 3 years is COVID-19. This virus compared to others did not have such a huge influence on the population with a death toll of approximately 6.69 million², mainly due to the new technologies that are used in science and biology, making it easier to find a cure for it. New technologies have been developed and practiced, ones where the process of creating a vaccine for viruses is easier. Also, people often migrate to different regions of the world and, thus, contribute to the overpopulation of such regions.

Overpopulation can be an issue for several reasons, the main one being the exhaustion of natural resources. Because of the increasing number of people in the world, more people are in need of resources in order to fend for themselves; therefore, as the population rises, the natural resources due to higher demand have a greater decrease in quantity. Furthermore, another result of overpopulation is that of fossil fuels released onto the atmosphere. People use cars and other vehicles to reach a specific destination and the gasses used for them to function are greatly damaging the environment. Consequently, with the rise in population more people are in need of such vehicles and, thus, more of such oils and gasses are used every day, having a negative impact on the atmosphere.

² "COVID Live - Coronavirus Statistics - Worldometer." *Worldometer - Real Time World Statistics*, May 1352, www.worldometers.info/coronavirus/



.

¹ "1918 Pandemic (H1N1 Virus)." *Centers for Disease Control and Prevention*, 16 June 2020, www.cdc.gov/flu/pandemic-resources/1918-pandemic-h1n1.html

DEFINITION OF KEY TERMS

Overpopulation

Overpopulation is a term used to describe the state of having a population so dense and growing at rapid pace that it has an impact on the environment or the quality of life since the available resources cannot support the entirety of the population.³

Sustainability

Sustainability is the way in which one can sufficiently meet the needs of the present time without negatively affecting the course of future generations to come, mostly in regards to the environment⁴

Agriculture

Agriculture is the practice of cultivating land and soil in order to produce products regarding both products collected from crops and relying on animals to provide textile materials such as wool⁵

Industrialization

Industrialization is the term used when referring to the shift in the market from the production being solely based on agricultural products to the manufactured goods and based on industry⁶

Influenza (Flu)

Influenza or as commonly abbreviated as the flu is an illness that causes headaches and fever to the infected⁷

Death Rates

A number which indicates the quantity of people dead at a specific place and time⁸

Population Density

The density of a population is the amount of people concentrated at a specific place all simultaneously⁹

⁹ "Population Density." www.education.nationalgeographic.org/resource/population-density



³ Definition of OVERPOPULATION." *Dictionary by Merriam-Webster: America's Most-trusted Online Dictionary*, <u>www.merriam-webster.com/dictionary/overpopulation</u>.

⁴United Nations. "Sustainability." *United Nations*, www.un.org/en/academic-impact/sustainability

⁵ "Agricultural." *Cambridge Dictionary | English Dictionary, Translations & Thesaurus,* www.dictionary.cambridge.org/dictionary/english/agricultural

⁶ "Industrialisation." *Teaching and Learning Resources | Tutor2u*, www.tutor2u.net/sociology/topics/industrialisation

⁷ "Flu." *Cambridge Dictionary | English Dictionary, Translations & Thesaurus*, www.dictionary.cambridge.org/dictionary/english/flu

⁸ "Death Rate Definition & Meaning | Britannica Dictionary." *Encyclopedia Britannica | Britannica*, www.britannica.com/dictionary/death-rate

BACKGROUND INFORMATION

Causes of Overpopulation

Social Causes

Overpopulation can be caused by a number of factors, all of which can be broken down into social and economic causes. Those regarding the social aspect as mainly focused on the lack of women's education, and underutilization of contraception. Although women's education as a concept has become more normalized in today's society, the view that women are inferior to men intellectually is still apparent seeing as more than 130 million girls worldwide are lacking education in institutes¹⁰. Due to this fact, the age in which child bearing has decreased and early marriage is more normalized. In areas where women do not have equal status and opportunities as men, they may be less likely to have control over their own fertility and may have larger families, contributing even more to overpopulation.

By encouraging the participation of girls in educational institutes the rate of fertility will be decreased whilst at the same time the number of women in the workforce will increase. Furthermore, the underutilization of contraceptive means is a major issue socially. Approximately 214 million women in developing countries refuse to use the necessary healthcare means when it comes to their pregnancy for reasons closely related to the social or religious beliefs of that country, ones that discourage abortion, since in some cultures and religions, having large families is seen as a source of pride and status. As a result, over 44% of pregnancies are unplanned per year¹¹. Lastly, governments may not prioritize addressing overpopulation, leading to a lack of policies or programs aimed at reducing population growth. This can result in population growth continuing unchecked.

Economic causes

Lack of access to family planning resources and education, poverty and low income, unemployment and job insecurity, and poor access to reproductive health care are all economic causes of overpopulation. Firstly, when people lack access to family planning resources and education, they may have difficulty controlling the size of their families, leading to population growth that exceeds the carrying capacity of the environment. This is especially true in poverty-stricken regions where people often have large families because children are seen as a source of economic support. In addition, unemployment and job insecurity can lead to overpopulation as people have more children in an attempt to ensure a source of support in their old age. According to the UN the 48 poorest countries are the major contributors to the population

¹¹ "Nearly Half of All Pregnancies Are Unintended—a Global Crisis, Says New UNFPA Report." *United Nations Population Fund*, www.unfpa.org/press/nearly-half-all-pregnancies-are-unintended-global-crisis-says-new-unfpa-report



1

¹⁰ "Overpopulation: Cause and Effect." *Population Media Center*, 25 June 2020, www.populationmedia.org/blog/overpopulation-cause-and-effect

growth with the combined population of such countries expected to increase from 850 million in 2010 to 1.7 billion by 2050¹².

Poor access to reproductive health care can also contribute to overpopulation by making it difficult for people to control the size of their families. When people do not have access to birth control methods, they may have more children than they would otherwise. Additionally, poor access to reproductive health care can result in high maternal and child mortality rates, which can lead to high birth rates as families attempt to compensate for losses. These economic factors can result in population growth that exceeds the carrying capacity of the environment, leading to overpopulation.

Socioeconomic effects

Overpopulation can have a wide range of negative socioeconomic effects on individuals, communities, and countries. One of the major effects is increased poverty, as overpopulation puts pressure on resources and leads to increased competition for jobs, housing, and other basic necessities. This can make it more difficult for people to meet their basic needs and can lead to increased poverty.

Another significant effect of overpopulation is environmental degradation from the aspect of increased water and food scarcity. Overpopulation can lead to increased pollution, deforestation, and other forms of environmental degradation. This can result in a decline in air and water quality and make it more difficult for people to access clean water and food.

Overpopulation also puts strain on healthcare and education systems. As population grows, it increases the demand for healthcare and education services. This can make it more difficult for people to access these services and can lead to lower quality services overall. Furthermore, overpopulation can also lead to political instability and can make it more difficult for governments to provide basic services to their populations.

Moreover, overpopulation can cause strain on infrastructure and public services such as transportation, housing, sewage and waste management, as well as other public infrastructure. This can lead to problems such as traffic congestion, lack of affordable housing, and inadequate public services.

Additionally, overpopulation can lead to a decrease in economic growth and development. As resources are more scarce and the cost of providing goods and services increases, it can become more difficult for countries to grow their economies and improve the standard of living for their citizens.

¹² "Attention Required!" *Attention Required! | Cloudflare*, <u>www.conserve-energy-future.com/causes-effects-solutions-of-overpopulation.php</u>



_

Impact of Overpopulation on Sustainability

Overpopulation is an issue that has been growing in concern in recent years, as the world's population continues to increase at a rapid rate. This population growth can have a significant impact on environmental sustainability, as it can lead to depletion of resources, environmental degradation, climate change, and difficulty in achieving sustainable development goals. The impact of overpopulation on sustainability is multi-faceted and interconnected, and it requires a comprehensive approach to address it. Understanding the relationship between population growth and sustainability is crucial for achieving a sustainable future for all.

Resource depletion

As the population grows, the demand for resources such as water, food, and energy also increases. This can lead to over-exploitation of natural resources, such as overfishing, over-logging and over-extraction of minerals and fossil fuels. When resources are depleted, it can be difficult or impossible to replace them, and can lead to shortages, which can have a negative impact on the economy and the well-being of people.

Environmental degradation

As the population grows, so does the amount of waste and pollution that is produced. This can lead to increased deforestation and habitat destruction, which can have a negative impact on biodiversity and the overall health of the planet. Furthermore, overpopulation can cause air and water pollution, and the production of greenhouse gasses which contribute to global warming and climate change.

Climate Change

Overpopulation can exacerbate the impacts of climate change, as more people consume more resources, produce more waste and generate more pollution. The burning of fossil fuels for energy and transportation, along with deforestation and other land-use changes, are major contributors to greenhouse gas emissions. These emissions trap heat in the atmosphere, leading to rising global temperatures, rising sea levels, and more extreme weather events.

MAJOR COUNTRIES AND ORGANIZATIONS INVOLVED

Bangladesh

Bangladesh is one of the most densely populated countries in the world, with a population of over 160 million people with a population density of 1265 per Km².¹³ The high population density in Bangladesh has led to a number of challenges including

 $[\]frac{population/\#:\text{``:text=The\%20population\%20density\%20in\%20Bangladesh,3\%2C277\%20people\%20per\%20mi2).\&text=The\%20median\%20age\%20in\%20Bangladesh\%20is\%2027.6\%20years.}$



_

¹³ "Bangladesh Population (Live)." *Worldometer*, <u>www.worldometers.info/world-population/bangladesh-</u>

limited resources, environmental degradation, economic challenges, and health and healthcare issues. Limited resources like land, water, and food have led to issues such as deforestation, water shortages, and food insecurity. Environmental degradation, like soil erosion, water pollution, and loss of biodiversity, has also been caused by overpopulation. Additionally, the country is particularly vulnerable to the impacts of climate change, such as flooding and the rise of sea-levels. Overpopulation has led to increased competition for jobs and housing, which has contributed to poverty and economic inequality. The country also has a large informal sector and a significant proportion of the population lives in slums. The high population density in Bangladesh has put a strain on the country's healthcare system, leading to overcrowding and the spread of disease. Additionally, maternal and child health is a major concern in the country. In response to these challenges, the government of Bangladesh has implemented a number of measures to address overpopulation. The government has implemented a number of family planning programs to help couples plan their families and reduce the birth rate of the country. It has also implemented economic development programs to help create jobs and improve living standards. Environmental conservation programs have been implemented to help protect the country's natural resources and biodiversity. The government has also implemented a number of health and healthcare programs to improve maternal and child health, and to reduce maternal and infant mortality rate and to provide better access to healthcare for the population. Overall, Bangladesh has implemented a number of measures to address the challenges of overpopulation, but the problem is still persistent, and more efforts are needed to ensure sustainable population growth and development.



China

China is the most populous country in the world, with a population of over 1.4 billion people.¹⁴ Overpopulation in China has led to a number of challenges including limited resources, environmental degradation, economic challenges, and health and healthcare issues. Limited resources like land, water, and food have led to issues such as deforestation, water shortages, and food insecurity. Environmental degradation such as air and water pollution, soil erosion, and loss of biodiversity have also been caused by overpopulation. The country is also facing the negative effects of urbanization, as well as the impacts of climate change. Overpopulation has led to increased competition for jobs and housing, which has contributed to poverty and economic inequality. The country also has a large informal sector and a significant proportion of the population lives in poverty. The high population density in China has put a strain on the country's healthcare system, leading to overcrowding and the spread of disease. Additionally, maternal and child health is a major concern in the country. In response to these challenges, the government of China has implemented a number of measures to address overpopulation. The government has implemented a strict family planning policy, commonly known as the "One-Child Policy" to control population growth. This policy has been successful in reducing the country's fertility rate, which has helped to slow population growth. Economic development programs have been implemented to help create jobs and improve living standards, environmental conservation programs have been implemented to help protect the country's natural resources and biodiversity, and health and healthcare programs have been implemented to improve maternal and child health, reduce maternal and infant mortality rate, and to provide better access to healthcare for the population. Overall, China has implemented a number of measures to address the challenges of overpopulation, but the problem is still persistent, and more efforts are needed to ensure sustainable population growth and development.

India

India has implemented several policies and initiatives aimed at tackling the impact of overpopulation on sustainability. For example, India has a long-standing family planning program that aims to educate citizens about the benefits of family planning and the importance of spacing births. The program provides access to a wide range of contraceptive methods and services to enable people to make informed decisions about their reproductive health. There is also the Swachh Bharat Abhiyan (Clean India Campaign), a nationwide cleanliness campaign aimed at improving the health and hygiene of citizens and promoting sustainability. The campaign aims to reduce the burden of diseases caused by poor sanitation and promote clean and sustainable practices. Overall, India is taking a multi-pronged approach to tackling the impact of overpopulation on sustainability, with a focus on education, health, and economic development. The government is also actively promoting sustainable practices and reducing the country's carbon footprint through initiatives such as the Clean India Campaign and Make in India.



Thailand

Thailand's population has undergone high birth rates accompanied by low death rates and as a result is considered an overpopulated country. During the past years, several civilians were seen moving to the city and leaving the rural areas of the country. Correspondingly, Thailand has been undergoing air pollution, water pollution, and large numbers of citizens facing poverty. In order for Thailand to deal with such a problem, they have successfully implemented a family planning program. They have been able to reduce population growth from 3.2% each year to 1.2%¹⁵. The reasons for which such a program was so successful was because of the way it was promoted, through an economic lens, meaning it has reduced the strain on the country's resources. When the program was first introduced to the public, the government stressed the economic implications that accompany population growth, urging civilians to follow the program. In regards to the accessibility, it was imposed on any government hospital whilst doctors and nurses had to undergo mandatory counseling training.

United States of America (USA)

In the past 50 years the United States have had a steady increase in population with over 327 million civilians occupying it as of right now; however, it is expected that the population will reach 404 million people by 2060. The United States has not implemented any specific population control policies like some other countries have. However, the population growth rate of the US has been relatively low, and the country has a relatively low population density compared to many other MEDCs. The US population growth rate has been decreasing over time, in part due to declining fertility rates and an aging population.

The US has also invested in family planning and reproductive health programs, both domestically and internationally, to help people access the resources and information they need to make informed decisions about their reproductive health. However, the policies and funding for these programs have been controversial and have fluctuated over time. There is also a growing awareness in the US of the potential negative impacts of overpopulation on the environment and resources, which has led to calls for greater investment in sustainable development and population stabilization.

In summary, the US has not implemented specific population control policies like some other countries have, but the population growth rate of the US has been relatively low, and the country has invested in family planning and reproductive health

¹⁶ "By 2060, a Quarter of U.S. Residents Will Be over Age 65, Census Reports Say." *NBCNews.com*, NBCUniversal News Group, 14 Feb. 2020, www.nbcnews.com/news/us-news/2060-quarter-u-s-residents-will-be-over-age-65-n1136816.



¹⁴ "China Population (Live)." *Worldometer*, <u>www.worldometers.info/world-population/china-population/</u>.

¹⁵ Nepomuceno, T. "The "anatomy" of Thailand's Successful Family Planning Program." *PubMed*, 18 Feb. <u>www.pubmed.ncbi.nlm.nih.gov/12317181/</u>

programs. There is a growing awareness of the potential negative impacts of overpopulation on the environment and resources.

United Nations Population Fund (UNFPA)

The UN Population Fund started in 1969 as a way to make reproductive and maternal health safer. They aim to make a world where every pregnancy is wanted and have succeeded in passing laws regarding such topics in over 150 countries, all providing health care to both women and children. This organization is not only concerned with gender equality matters and has programs supporting young people meddled with pregnancy or marriage. They have been successful in providing information regarding the issues mentioned above and provide a family planning program. Family planning is a way with which families can prevent any problems that may concern contraception or are of financial nature and lead to the better sustainability of the world since it ensures that families are stable enough to have children.

TIMELINE OF EVENTS

DATE	DESCRIPTION OF EVENT
1969	The UN Population Fund is created.
25 September 1980	The one-child policy is implemented in China.
21 March 1994	The UNFCCC is put into force.
11 December 1997	The Kyoto Protocol is drafted by the UNFCCC.
4 November 2016	The Paris Agreement is put into effect.
1 January 2016	The UN puts into effect the 17 Sustainable Development Goals.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

Bill and Melinda Gates foundation

The Bill and Melinda Gates Foundation has been actively involved in efforts to address overpopulation through its work on family planning and reproductive health. The foundation's mission is to help all people lead healthy, productive lives, and they believe that access to family planning and reproductive health services is an important aspect of achieving this goal. Firstly, funding research and development of new



contraceptive methods: The foundation has invested in the development of new and innovative forms of birth control, such as long-acting reversible contraceptives (LARCs) and oral contraceptives for men. Furthermore, supporting the training of health workers: The foundation provides funding and support for the training of health workers in developing countries to provide family planning and reproductive health services.

Another way is by improving access to family planning services: The foundation works to improve access to family planning services in developing countries by funding programs that provide education and counseling on family planning, and by supporting the delivery of birth control methods in areas with limited access. As well as advocating for family planning: The foundation works to raise awareness about the importance of family planning and to advocate for policies and funding that support family planning and reproductive health. Lastly, they are supporting women's rights and empowerment: The foundation recognizes that empowering women and girls is key to addressing overpopulation, they support programs that provide education and job training for women, as well as programs that promote gender equality and women's rights. The foundation's work in this area is ongoing, and they continue to collaborate with governments, NGOs, and other organizations to improve access to family planning and reproductive health services in developing countries, as part of efforts to address overpopulation.

Chinese one-child policy

The one-child policy of China was a population control measure implemented by the Chinese government in the late 1970s to limit the number of children that families could have. The policy was intended to slow population growth and reduce strain on the country's resources. Under the policy, most urban families were limited to having only one child, while rural families were allowed to have a second child if their first child was a girl.

The policy was enforced through a variety of means, including fines, loss of employment, and even forced abortions and sterilizations. The policy was officially abandoned in 2015, and replaced with a two-child policy. The one-child policy has been the subject of much debate, with some arguing that it was necessary to control China's population and others arguing that it was a violation of human rights. This policy had some positive effects for China. It helped to slow population growth, which reduced the strain on China's resources and allowed for more rapid economic development. Also, it helped to improve the standard of living for many families by allowing them to invest more resources in each child, and it helped to reduce China's carbon footprint and mitigate the impact of overpopulation on the environment.

On the other hand, it had several negative effects. It led to human rights abuses, such as forced abortions and sterilizations, which had a traumatic effect on many individuals and families. It led to a gender imbalance, as a preference for male children led to an increase in sex-selective abortions and abandonment of female infants. Moreover, it led to a rapidly aging population, as the birth rate decreased and the



number of elderly citizens increased. Lastly, it led to a decrease in the workforce and a decrease in the number of young people in the population, which may have long-term negative effects on the economy.

The Paris Agreement

The Paris Agreement signed on 22 April 2016 and approved by the European Union on 5 October 2016 was an international treaty on climate change adopted by 196 parties and was put into effect on 4 November 2016. The agreement was created to improve and replace, eventually, the Kyoto Protocol. It was a legally binding agreement which hoped to have a result of zero emissions released into the atmosphere. The aim of the agreement was to limit the climate from rising temperatures by 2 degrees Celsius. All countries that signed have to assess their progress every five years with the first being planned for 2023.

The Paris Agreement's effect on overpopulation can be seen in several ways. Firstly, the Paris Agreement aims to reduce greenhouse gas emissions by encouraging countries to switch to clean energy sources, implementing carbon pricing mechanisms, and promoting energy efficiency. This will reduce the environmental impact of overpopulation by slowing down climate change. In addition, the Paris Agreement encourages countries to adopt sustainable development policies that take into account the social, economic, and environmental dimensions of development. This can help to address overpopulation by reducing poverty and improving living standards, which, in turn, can lead to lower birth rates.

Furthermore, the Paris Agreement recognizes the importance of helping countries adapt to the impacts of climate change, including those resulting from overpopulation, such as increasing frequency of extreme weather events, sea-level rise, and land degradation. It has to also be noted that MEDCs have committed to providing financial support to help developing countries transition to low-carbon and climate-resilient economies, which can also help them to address overpopulation.

United Nations Population Fund (UNFPA)

The United Nations Population Fund (UNFPA) has been collecting funds and providing women in less developed countries the so-called "dignity kit" for a couple of years. Said "dignity kit" contains the basic feminine health items as well as new mother necessities for all women to have available. The items include towels, reusable menstrual pads, shampoo, underwear, diapers, and many more. The dignity kits are a way for women to deal with their menstruation in a healthy way. In 2021, they delivered half a million kits to women from 41 different countries¹⁷ and are planning on expanding their impact as more donations are granted. They aim at making women's health more available to girls and women living in dire conditions whilst ensuring that if in a crisis they are provided with the necessary items to care for themselves and their health. These kits have had great feedback from the public and

¹⁷ "UNFPA Basic Dignity Kit." *United Nations Population Fund*, <u>www.unfpa.org/resources/unfpa-basic-dignity-kit</u>



are of huge help to women undergoing a crisis; however, the UNFPA has recognized the larger need for such services in other nations and hopes to enlarge their range worldwide.

International Conference on Population and Development (1994)

The International Conference on Population and Development (ICDP) took place from September 5th-13th in 1994 in Cairo, Egypt. Participants of the conference were representatives from 179 governments and was held by the UN, organized by the UNFPA, the Population Division, now called Department of Economic and Social Affairs. The ICDP aimed at reaching a consensus on women's need to access sexual and reproductive health while, at the same time, their role in population growth was discussed. The consensus was adopted by the Programme of Actions, which was implemented on September 13, 1994, and included actions focused on achieving the wider accessibility of healthcare to both women and men instead of reaching specific goals or demographics.

POSSIBLE SOLUTIONS

Family planning

A potential solution to address the sustainability concerns arising from overpopulation is through the promotion and implementation of family planning programs. Family planning allows households to plan and manage the number of children they are able to support and care for, both economically and emotionally. To effectively encourage the widespread adoption of family planning, the United Nations Population Fund (UNFPA) could provide mandatory counseling sessions for all families, with a focus on teenage pregnancies and low-income households.

To raise awareness and support for this initiative, the UN and World Bank could fund campaigns and initiatives aimed at educating the public on the importance and benefits of family planning. These campaigns could be implemented across various platforms, including social media, to reach a wide audience.

Moreover, mandatory counseling sessions would be offered to all Member States, with special attention given to Less Economically Developed Countries (LEDCs) where the sustainability concerns of overpopulation are often most pronounced. By providing families with the necessary resources and support to plan their families effectively, the implementation of family planning programs can contribute to a more sustainable future for both the planet and its inhabitants.



Raising awareness

Another effective approach to address the issue of overpopulation is through raising public awareness and education. By increasing understanding of the consequences of overpopulation on the sustainability of our planet, individuals may be motivated to participate in family planning programs and make informed decisions about their family size. To achieve this objective, comprehensive public awareness campaigns can be launched through various platforms, including social media, to reach a wide audience. These campaigns could be funded by international organizations such as the World Bank and the United Nations, and aim to raise awareness, educate the public, and generate support for addressing the issue. By raising awareness, individuals who are willing to help address the issue will have the means to do so and contribute to a more sustainable future.

Implementation of tax benefits or financial incentives to families with fewer children

One approach to address the issue of overpopulation is Member States to implement laws that provide tax benefits or financial incentives to families who have fewer children. These incentives would encourage households to limit their number of children as they would financially benefit from doing so, particularly for low-income families living in less economically developed countries (LEDCs). With reduced taxes or increased incentives, these families may make more informed decisions regarding the number of children they wish to have, as having fewer children would result in improved household finances.

However, the implementation of such laws may face challenges. For instance, there may be perceptions of unfairness among the public and governments of LEDCs may struggle to provide these incentives due to financial constraints. Nevertheless, considering the effects of overpopulation on sustainability, it is important to explore creative and effective solutions like financial incentives that can help mitigate the impacts of overpopulation.

BIBLIOGRAPHY

"About Us." United Nations Population Fund, www.unfpa.org/about-us

"Sustainable Development Goals | United Nations Development Programme." *UNDP*, www.undp.org/south-africa/sustainable-development-goals?utm source=EN&utm medium=GSR&utm content=US UNDP PaidSearch Br an



"CK12-Foundation." *CK-12 Foundation*, <u>www.flexbooks.ck12.org/cbook/ck-12-college-human-biology-flexbook-2.0/section/25.4/primary/lesson/history-of-human-population-growth-chumbio/</u>

United Nations. "Sustainability." *United Nations*, <u>www.un.org/en/academicimpact/sustainability</u>.

"The World Population Explosion: Causes, Backgrounds and Projections for the Future." *PubMed Central (PMC)*, www.ncbi.nlm.nih.gov/pmc/articles/PMC3987379/

"Overpopulation: Cause and Effect." *Population Media Center*, 25 June 2020, www.populationmedia.org/blog/overpopulation-cause-and-effect

"UN Framework Convention on Climate Change – UNFCCC." *IISD Earth Negotiations Bulletin*, <u>www.enb.iisd.org/negotiations/un-framework-convention-climate-change-unfccc</u>

"World Conferences on Sustainable Development." *Youmatter*, 6 Sept. 2021, www.youmatter.world/en/definition/definitions-world-conferences-sustainable-development/

"The Paris Agreement | UNFCCC." www.unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

"Solutions to Overpopulation and What You Can Do." *MAHB*, 10 Dec. 2021, www.mahb.stanford.edu/library-item/solutions-overpopulation-can/

"Effects of the Agricultural Revolution | History of Western Civilization II." *Lumen Learning – Simple Book Production*, <u>www.courses.lumenlearning.com/suny-hccc-worldhistory2/chapter/effects-of-the-agricultural-revolution/</u>

"Over Half of Global Population Lives in These 7 Countries." *World Economic Forum*, 28 July 2022, www.weforum.org/agenda/2022/07/global-population-growth-united-nations

"Common Era." *Cambridge Dictionary | English Dictionary, Translations & Thesaurus,* www.dictionary.cambridge.org/dictionary/english/common-era

"Black Death." Encyclopedia Britannica, www.britannica.com/event/Black-Death

"Smallpox." *World Health Organization (WHO),* 1 Nov. 2019, <u>www.who.int/health-topics/smallpox#tab=tab_1</u>

"Digital History." *UH - Digital History,* www.digitalhistory.uh.edu/topic_display.cfm?tcid=134

History.com Editors. "Spanish Flu." *HISTORY*, 12 Oct. 2010, www.history.com/topics/world-war-i/1918-flu-pandemic

"The Reasons For Overpopulation Issue In China [2463 Words]." *Edubirdie*, 29 Oct. 2021, www.edubirdie.com/examples/the-reasons-for-overpopulation-issue-in-china



Thelwell, Kim. "Top 10 Facts About Overpopulation in China." *The Borgen Project*, 19 July 2019, www.borgenproject.org/top-10-facts-about-overpopulation-in-china/

Cloudflare, www.mapsofindia.com/my-india/india/overpopulation-in-india-causes-effects-and-how-to-control-it

Colton, Glen, and Treasure Coast. "Overpopulation is America's Biggest Environmental Threat." *Treasure Coast Newspapers*, 24 June 2019, https://www.eu.tcpalm.com/story/opinion/contributors/2019/06/24/overpopulation-americas-biggest-environmental-threat/1521908001/

"The United States Is Already Overpopulated." *Leading Fight to Stop Illegal Immigration | Federation for American Immigration Reform*, 9 Dec. 2022, www.fairus.org/issue/population-environment/united-states-already-overpopulated

"Sustainable Development Goals." *Welcome to the United Nations*, www.un.org/development/desa/pd/content/sustainable-development-goals-2

"Overpopulation - Thailand." www..google.com/site/rebeccacentersthai/home/overpopulation

United Nations Population Fund, 8 Nov. 2022, www.unfpa.org/

"Bangladesh Population (2022)." Worldometer - Real Time World Statistics, www.worldometers.info/world-population/bangladesh-population/

"Bangladesh Population (2022)." Worldometer - Real Time World Statistics, www.worldometers.info/world-population/bangladesh-population/

Nepomuceno, T. "The "anatomy" of Thailand's Successful Family Planning Program." *PubMed*, 18 Feb. www.pubmed.ncbi.nlm.nih.gov/12317181/
"Population Growth." *Understanding Global Change*, 8 Mar. 2022, www.ugc.berkeley.edu/background-content/population-growth/

"The Black Death and the Human Impact on the Environment." *SpringerLink*, www.link.springer.com/chapter/10.1007/978-3-319-49163-9 5

"Environmental Effects of War." *Water Treatment and Purification - Lenntech*, www.lenntech.com/environmental-effects-war.htm

"The Mystery of the Declining U.S. Birth Rate." *Econofact | Key Facts and Incisive Analysis to the National Debate on Economic and Social Policies*, 4 Apr. 2022, www.econofact.org/the-mystery-of-the-declining-u-s-birth-rate

"Environment, Energy, and Climate Resilience | Bangladesh | U.S. Agency for International Development." *U.S. Agency for International Development*, www.usaid.gov/bangladesh/environment-energy-climate-resilience

"After 25 Years of Failure, We Should Abandon the UNFCCC." *Climate Home News*, 15 Dec. 2019, www.climatechangenews.com/2019/03/27/25-years-failure-abandon-unfccc/



Ecology, Circular. "The Kyoto Protocol: Climate Change Success or Global Warming Failure?" *Circular Ecology*, 14 May 2020, www.circularecology.com/news/the-kyoto-protocol-climate-change-success-or-global-warming-failure

"The Kyoto protocol: Empirical evidence of a hidden success." May 2019, www.sciencedirect.com/science/article/abs/pii/S0095069618300391
"Global Climate Agreements: Successes and Failures." *Council on Foreign Relations*, 28 Oct. 2020, www.cfr.org/backgrounder/paris-global-climate-change-agreements

"Paris Agreement Vs Kyoto Protocol [Comparison Chart] — Care About Climate."

Care About Climate, 22 Jan. 2021, ws-kyoto-protocol-comparison-chart

"Nearly Half of All Pregnancies Are Unintended—a Global Crisis, Says New UNFPA Report." *United Nations Population Fund*, www.unfpa-report
"Overpopulation: Cause and Effect." *Population Media Center*, 25 June 2020, www.populationmedia.org/blog/overpopulation-cause-and-effect
"UNFPA Basic Dignity Kit." *United Nations Population Fund*, www.unfpa.org/resources/unfpa-basic-dignity-kit
"International Conference on Population and Development (ICPD)." *United Nations Population Fund*, www.unfpa.org/events/international-conference-population-and-development-icpd

MULTIMEDIA RESOURCES

Mulhern, Owen. "Mapping The Plague Pandemics." *Earth.Org*, 13 Oct. 2020, www.earth.org/data-visualization/pandemic-map-plagues/

"Smallpox." Our World in Data, www.ourworldindata.org/smallpox

Gay, Hannah. "Spanish Flu: How the 1918 Pandemic Hit Ulster and Beyond." *BBC News*, 24 Nov. 2018, www.bbc.co.uk/news/uk-northern-ireland-46265074

