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# Ethical Implications of Population Growth and Reduction

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# **Ethical Implications of Population Growth and Reduction**

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## **Abstract**

This thesis addresses the ethical dimensions of the overuse of the Earth's ecosystem services and how human population growth exacerbates it, necessitating an ethically motivated reduction in human population size by means of changes in population policy. This policy change serves the goal of reducing the overall global population as the most effective means to alleviate global issues of climate change and resource abuse. Chapter 1 draws on the United Nations' *Millennium Ecosystem Assessment* and other sources to document the human overuse and degradation of ecosystem services, including energy resources. Chapter 2 explores the history of energy consumption and climate change. Chapter 3 examines the economic impact of reducing populations and how healthcare and retirement plans would be impacted by a decrease in a working population. Chapter 4 considers the implications of ethical issues surrounding the reduction of the global population, particularly in China and India where populations are drastically higher than in any other countries. Drawing on the discussions in earlier chapters, the concluding chapter 5 proposes ethically based policies for limiting birth rates in order to not only reduce the overall global population, but also limit the amount of ecosystem services used globally and allow for a higher quality of life for the remaining human population.

**Keywords:** climate change, energy overuse, human population growth, reduction in population, ethics, policy, human rights.

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## **Introduction: Overconsumption and Overpopulation as Ethical Problems**

Human beings are responsible for creating the Earth's greatest environmental problems today. This predicament is the result of people being faced with ethical choices (though they may not be aware of the ethical nature of the choices) and choosing the outcome that best suits only themselves. It is also often the case that it is only a small slice of human agents making the most important policy decisions, despite adverse long-term environmental effects which others, including future generations, must live with. One of the most harrowing ethical predicaments today is global resource abuse. This predicament has proven disastrous for the vast majority of other species in the form of population declines and extinctions as they are faced with habitat loss, pollution, and climate change. Further, the current exponential growth of the human population exacerbates these issues, while forcing billions of human beings themselves into situations of poverty, starvation, and lack of basic services such as sanitation and health care. Human overconsumption and overpopulation are among the most pressing ethical issues of our time.

In many ethical problems, a solution is not immediately apparent to us and is challenging because of the complexity of the problem's causes. How do I fix a problem on a global scale that I myself did not create and do not alone continue to worsen? The feeling of distress and unsettlement that one experiences when thinking about the global problems that the world endures every day is a result of the our rational and ethical human nature, leading us to feel guilty and even disgusted by the negative changes that we have, each of us in part, brought about. Global issues that affect all agents in the world, human and non-human alike, require

action that is both ethically based and should be implemented in the realms of social and political policy.

One reason for this needed action is that not all people are equal stakeholders or effected in the same way by global issues such as resource availability. People experience life differently based on their position in the world, which includes their citizenship in a developed or developing country, how many resources are available to them, their access to basic necessities such as food, water, and healthcare. While some populations, such as most Americans, enjoy easy access to these basic resources, including energy resources, other populations do not have this basic access and certainly do not benefit from other amenities such as air conditioning or access to a personal vehicle that those in developed countries enjoy. Therefore, when considering the environmental challenges human beings have created, it is critical to understand where these issues have come from, including who benefits and suffers the most due to lack of resources, overconsumption, and ultimately overpopulation. This thesis addresses overpopulation and its impacts on human and non-human agents alike, exploring the ethical responsibility of making policy decisions that entail restrictions on certain human rights.

The proposed policy changes in this thesis will respond to global issues presented in chapters 1 through 4, which deal with resource overuse, exponential human population growth, and the ethical positions that can be used to justify limiting a growing population by means of limiting human choice. Chapter 1 lays out quantitative data on resource overuse, population growth, and climate change. Chapter 2 explores the history of resource use and the emergence of climate change. Chapter 3 utilizes economic theory to examine a model for economic growth that holds that resources are finite and cannot support endless exponential economic and

population growth. Chapter 4 considers the ethical implications of reducing the global population, particularly in China and India where populations are drastically higher than in any other countries in the world. This chapter calls upon philosophical ethics to consider who would be affected by a reduction in the birth rate. This section will be longer than the other chapters as it evaluates the benefits and burdens of restricting the global population, how doing so will impact generations, and how individuals will be challenged to limit their rights and freedoms.

Finally, chapter 5 will broach specific policy recommendations that map out how to limit birth rates in order to restrain population growth and global resource use, and allow for a higher quality of life for the remaining human population, as well as for future stakeholders. The main recommendation is a governmental penalty and reward system, one which draws upon lessons learned from successes and failures of China's recent population policies and the United States' child welfare policies. This system would operate such that people would maintain their integrity of choice, but are encouraged to act for the sake of population reduction. Couples with no children, or two or less children, would benefit most from this policy, enjoying tax cuts and other cost reduction benefits, such as not having to pay public schooling costs. Couples who have more than two children would not be legally punished simply for having a larger family, but rather would be taxed additionally and would have to pay for services that are usually paid for by the government, such as public school access and in-state university tuition. Additionally, these policies would be communicated to the public through family planning programs, in which couples would consider not only their own readiness to start a family or have additional children, but also the possible additional financial factors that they would be subject to.

The purpose of this system of financial incentives and disincentives is to reward those who elect to have small families, and to discourage, but not legally prevent, those who elect to have more than two children. As such, the purpose of this voluntary system would also be to maintain integrity of choice. It encourages people to have fewer children through monetary incentives but in no way commands people not to do what they wish with their bodies and reproductive choices. It does not restrict choice. Rather, it simply economically incentivizes actions beneficial to the environment, the current human population, and future generations - actions which we have an ethical responsibility to carry out in order to achieve a more sustainable world for all.

## **Chapter 1. The Ecological Footprint of the Human Population**

In order to fully understand the vast quantity of resources that are being consumed, we must first evaluate what stock of resources are available on our planet, Earth. The United Nations has published “The Millennium Ecosystem Assessment,” containing data gathered between 2001 and 2005 to “assess consequences of ecosystem change for human well-being and to establish the scientific basis for actions needed to enhance the conservation and sustainable use of ecosystems and their contributions to human well-being.”<sup>1</sup> This report is invaluable in showing the current lack of conservation and the impacts of resource use in terms of their impact on the human population. While this paper does not focus solely on the well-being of the human population, it does weigh human well-being heavily, discussing how human overpopulation

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<sup>1</sup> Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being: Synthesis* (Washington: Island Press, 2005), v.

decreases the wellness of the population. Thus, human well-being is addressed as a large motivator to decrease the population size, which is central in this paper.

Human well-being is an enormous motivator for changes in lifestyle, as billions of human beings suffer from poverty, and are living without access to basic healthcare and clean water, among other basic necessities and resources that others freely enjoy. In fact, warnings to decrease the population size have been issued in the past as a means to prevent future human suffering. A 1968 book, *The Population Bomb*, published by a Stanford professor warned of a mass starvation event that would occur in the 1970s and 1980s if the human population did not sharply decrease. The book sold over 2 million copies, and spread awareness about environmental issues, and the urgency with which action needed to be taken in order to prevent a global food scarcity catastrophe. While the focus of the narrative was to draw attention to the needs of the human population, the author noted that there are other impacts too, such as environmental impacts that result from a high human population size. Though a dated, and somewhat inaccurate text, *The Population Bomb* is an example of a warning issued by the scientific community many decades ago regarding the effects of continued population growth.

*Millenium Ecosystem Assessment*. Human population growth is tied strongly to the degradation of the environment. This in turn is synonymous with the degradation of human health, as fewer readily available resources spread among many people will result in a lowered quality of life for the remaining population. The Millennium Ecosystem Assessment connects human well-being to ecosystem services, outlining how the well-being of our ecosystem services translates to the well-being of the human population. According to the assessment, human well-being and reduction of poverty are directly related to ecosystem services. That is to say,

provisioning services such as food and water, regulating services such as climate, water, and disease regulation, and cultural services such as spiritual, recreational, and educational resources, all feed into human well-being, and impact other factors of life as well.<sup>2</sup> These other factors are economic, sociopolitical, and cultural, which in turn impact technological adaptation, species introduction, and larger factors, such as climate change.<sup>3</sup> The assessment connects these services to human well-being not only because they are intrinsically connected, but also to outline the dependence that human health has on the health of ecosystem services. By revealing this connection, the assessment reveals the interest human beings ought to have in preserving these ecosystem services that we rely so heavily on.

Chiefly, the assessment recognizes the value of the Earth's natural resources and stresses the importance of conservation and sustainability. Namely, four main conclusions were reached in the assessment: first, that in the past 50 years, "humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history," secondly, that while the human population has benefitted from the use of the Earth's resources, these "gains have been achieved at growing costs in the form of the degradation of many ecosystem services, increased risks of nonlinear changes, and the exacerbation of poverty for some groups of people" and further, and perhaps most importantly, that these issues "will substantially diminish the benefits that future generations obtain from ecosystems."<sup>4</sup> The third conclusion states that the degradation of ecosystem services could become worse within the next 50 years and could stand in the way of achieving the Millennium Development Goals, issued by the United Nations. The last conclusion states that reversing the damage of overusing ecosystem services could be

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<sup>2</sup> Ibid, vii.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid, 1.

possible, but only with “significant changes in policies, institutions, and practices that are not currently underway.”<sup>5</sup> In terms of human well-being, the report found that the harmful effects of the degradation of the ecosystem is being disproportionately discarded on the poor, and that the degradation of the environment is sometimes the direct cause of poverty and conflict.<sup>6</sup>

*Extinction rates.* Human interference with natural ecosystem services is not limited to their impacts on the human population only, however; in fact, human abuse of resources has had a devastating impact on the rest of the world, degrading natural capital, and causing the extinction of a multitude of species, such as the the passenger pigeon in North America, or the western black rhinoceros in Africa. The current extinction rate is a 100 - 1000 times higher than past fossil records, with future projections predicting an extinction rate that is ten times higher than the current rate, making the extinctions caused by human activity astronomical.<sup>7</sup> More shockingly, however, is that although human misuse of resources has led to mass extinctions and other global catastrophes, approximately 60% of the ecosystem resources evaluated in the report are still being used unsustainably by the human population.<sup>8</sup> This indicates that we are unaware, or more likely indifferent to the catastrophes we are causing to the world and to ourselves, and indicates too an unwillingness to change our practices for the greater good of the environment, other human beings, and nonhuman agents. This disregard has been thematic in human history, resulting in the environmental predicaments we are faced with today. The United Nations warns against continuing this sort of behavior for the future if we hope to reform our ways and preserve global resources as well as human health.

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<sup>5</sup> Ibid.

<sup>6</sup> Ibid, 2.

<sup>7</sup> Ibid, 5.

<sup>8</sup> Ibid, 6.

The United Nations' Millennium Ecosystem Assessment frames resource misuse as unsustainable. In order to achieve human well-being, this resource overuse must cease or be adjusted on a large scale if we strive for an improved quality of life.<sup>9</sup> While I agree that ecosystem services and human well-being are connected, I assert that the unethical use of the ecosystem services that are provided to us should be motivation in itself to recognize the abuse we have brought about and the genesis of responsible use. In this way, I call for a treatment of the Earth's resources as an end in themselves, not a means to better our own well being, though that may be a symptom and fortunate outcome of responsible resource use. Thus, we must recognize that we are the cause of the degradation of natural capital and the well-being of not only other global stakeholder,s but the environment as a collective. While many people agree, it does not appear to be the global attitude that human beings should feel an ethical pull to sustainably use our resources in order to preserve and care for the Earth. This includes the recognition of the finite supply of many of these ecosystem resources we use unsustainably, and adjusting our use of them abruptly as a result.

That is to say, there ought to have been a call not only to use these resources sustainably, but to stop their use in such an apathetic and abusive manner. While a strong ethical pull should be enough to change our manner of dealing with the environment, this simply is not the case, otherwise we would have seen a shift in our resource use already, followed by an increase in the quality of life of many human beings as a result. However, the degradation of natural capital is directly associated with environmental change and impact on the human race, therefore even if human agents do not elect to reform their ways, it is in the human population's best interest to do

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<sup>9</sup> Ibid, iv.

so anyway. This will be achieved, as mentioned in the Millenium Ecosystem Assessment, through policy change, which will necessitate that human agents act for the greater good and for the good of those in different positions than themselves. These policy changes will inspire better and more sustainable treatment of ecosystem services that all living agents rely on.

The report importantly notes that even when ecosystem services are consciously used sustainably, poverty among the human population remains high, and inequities remain growing, where many people still do not have access to ecosystem resources that others benefit from. “In 2001, 1.1 billion people survived on less than \$1 per day of income with roughly 70% of this population in rural areas where they are highly dependent on agriculture, grazing, and hunting for subsistence.”<sup>10</sup> This means that roughly 16% of the world’s population is living in extreme poverty, without access to most of the essential ecosystem services that the world has to offer. This same population lacks access to improved water supplies. Further, greater water scarcity issues affect a total of 1 - 2 billion people worldwide.<sup>11</sup>

*Disproportionate resource use.* Human population growth lies at the heart of resource abuse and the subsequent problems it causes for the human population and world at large. Even sincere attempts to make the best use of ecosystem services and create sustainable practices are endangered by rapid population growth.<sup>12</sup> Population growth perpetuates the extreme resource use of some populations. For instance, the average U.S. citizen uses “100 times more commercial energy than the average person in Bangladesh.”<sup>13</sup> This indicates that population growth in certain areas of the world will have much more serious consequences than population growth in other

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<sup>10</sup> Ibid, 12.

<sup>11</sup> Ibid, 12.

<sup>12</sup> Ibid, 14.

<sup>13</sup> Jefferson W. Tester and Elisabeth M. Drake, *Sustainable Energy: Choosing Among Options* (MIT Press, 2012), 3.

areas. Should the population grow in highly developed areas of the world, such as the United States, the impacts on resource use will be much more devastating, as an average citizen of the United States uses more energy per capita than any other person in the world.

Further, energy demand is increasing in many parts of the world, as developing countries begin to emerge to use the resources that developed countries already consume. Even though some countries such as China are improving energy efficiency, their demand for energy use is increasing as the population increases.<sup>14</sup> Population size globally has been, and continues to increase exponentially. In 1700, the world population size was approximately 600 million, as opposed to the excess of 2000's 6 billion. Population size continued to grow, reaching 7 billion by 2011, and will reach a projected 11 billion total by 2100, the United Nations predicts.<sup>15</sup>

*Developing nations and resource use.* As reported in the United Nations' Millennium Ecosystem Assessment, the Earth's current population is not receiving proper medical care and continues to live in poverty, with over 2 billion people living without access to clean water sources and other basic ecosystem resources. In India, approximately 76% of people live on a total of \$2.25 per day or less, meaning that approximately three quarters of the country's entire population is living in extreme poverty.<sup>16</sup> In China, approximately 36% of all people live on this same budget, also living in extreme poverty.<sup>17</sup> Both China and India face severe resource and environmental problems because they are the two countries with the highest total population sizes, trumping the population size of any other country in the world.

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<sup>14</sup> Ibid.

<sup>15</sup> The United Nations, *World Population Prospects* (2008, <https://www.un.org/en/development/desa/population/publications/trends/population-prospects.asp>).

<sup>16</sup> G. Tyler Miller, Jr. and Scott E. Spoolman, *Living in the Environment* (Brooks/Cole, 2012), 143.

<sup>17</sup> Ibid.

In India, more than two thirds of waterways are seriously polluted, with inadequate sanitation services and severe air pollution plaguing the country, too. This is particularly notable as the country holds over 17% of the world's total population, where over a billion people do not have access to clean air or water, and the great majority of that population size is living in extreme poverty.<sup>18</sup> This is a clear example of the United Nation's point that the wellness of ecosystem services impacts the wellness of human health. Where there is pollution, health declines, and where living well is difficult by nature of resource availability, or the lack thereof, those living in extreme poverty suffer the most. To account for the scale of people living in extreme poverty and in a country that holds only 2.3% of the world's total land resources, we must understand that the greater portion of one billion people are living low qualities of life, by nature of the resources they are limited to, and the lack of care they are able to receive, as well the lack of environmental benefits they are able to enjoy.<sup>19</sup>

*Implications for quality of life.* A growing population will not only exacerbate these issues, but will stand in the way of achieving many humanitarian goals that require a decrease in use of certain resources and call for a higher quality of life for the overall human population. If we cannot deliver basic necessities such as medical care and clean water to the world's population now, how can we expect to do so with a growing population size? The current human population not only consumes the Earth's resources in excess, but also contributes tremendously to global catastrophes, such as climate change. Human activity sources climate change, and it is greenhouse gas emissions that primarily lead to and continue to aggravate this issue, which are

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<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

caused by none other than human beings.<sup>20</sup> Another issue arises even when we hope to heighten the quality of life for the human population. As the human population continues to move from developing to developed nations, the population will consume and pollute more than they do currently. This means that while we wish for the population to have a higher quality of life, with access to medical care, clean water, and an abundance of resources, moving developing countries to developed ones will take a large toll on the environment, if the number of people does not decrease. This movement from developing to developed world, though beneficial to the living human population, is catastrophic to the natural world and its ecosystem resources.

For all human beings to have a higher quality of life, or to obtain lifestyles of those living in developed countries, the global population size would have to decrease drastically to accommodate the resources that people would begin using as a result of their more consumptive lifestyles. The United States uses the most energy per capita, therefore if all people on the Earth currently were to be living comparable lifestyles to Americans, we would need 5 Earths to sustain the global population.<sup>21</sup> If the population were to increase, this number would increase accordingly, and we would be using more than 5 Earth's worth of resources. This is of course not possible, because we have only 1 Earth, whose resources are already becoming consumed and depleted. It is not difficult then to imagine that in order to bring people up from poverty into lifestyles that mimic or are equivalent to those living in developed countries, we cannot have so many people living in the world. Our resources simply do not allow for it. If we attempt to consume more resources than we have, we enter a state of competition with other human beings,

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<sup>20</sup> R.K. Pachauri et al., eds. "Summary for Policymakers," in *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Geneva: IPCC, 2014).

<sup>21</sup> Amy Mathews Amos, "Take the Test: How Many Earths Do You Need?" (August 26, 2013 <https://thedownstreamproject.org/2013/08/26/take-the-test-how-many-earths-do-you-need/>).

which will again lead to a cycle of poverty and a lowered quality of life, as some people will have access to resources and some will not. To truly care for the quality of life of all people means to understand the limits of the ecosystem services we have, and adjust our own behaviors and practices accordingly.

All factors of human activity are tightly intertwined with ecosystem services and environmental systems.<sup>22</sup> The Earth cannot sustain more humans because it does not have the resources to allow for a growing population size. Additionally, human beings cannot sustain a growing population, as this growth would entail less access to resources for the subsequent human beings. Population growth, therefore, degrades natural capital and ecosystem services worldwide, deeming it a worldwide phenomenon. The human population is pushing its carrying capacity on Earth with the exponential growth of the last several decades. We have demanded the availability of ecosystem services to support a growing population that are not available as we utilize unsustainable practices. Further, many resources will be too few in quantity to be spread globally, which poses a multitude of problems if the population is to grow. The only solution that accounts for human well-being as well as sustainable practices, is the decrease in global population size, so that all living human beings will benefit from the resources that are available. This will occur only if we are conscientious about our resource use, and mindful in our practices, particularly on a large scale.

## **Chapter 2. A History of Energy and Climate Change**

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<sup>22</sup> Jefferson W. Tester and Elisabeth M. Drake, *Sustainable Energy: Choosing Among Options* (MIT Press, 2012). <http://www.jstor.org/stable/j.ctt5hhbwk>, 4.

Global climate change, though more visible in recent years due to advanced science and a more critical social eye, has had a complicated history. Many factors have led to the exponential worsening of climate change. The industrial revolution was one of these factors, introducing fossil-fuel based machinery, factories, and changing attitudes that have evolved to contribute heavily to pollution and unsustainable practices, particularly in developed countries. What is notable in the history of climate change and particularly in the history of energy use is that this change is not only a scientific and quantitative change, but a cultural change as well, that has lead directly to climate-related issues.<sup>23</sup> This indicates that the aggravation of climate change has not only become enlarged due to technological advancements, but because attitudes and practices have allowed these harmful changes to occur. Human beings have become complacent about the issue of their damaging the natural world since the industrial revolution, choosing comfort over sustainability, as well as that which is best for the individual interests, rather than what is best for society as a whole and the world. What we are able to do and what we ought to do, have not often overlapped, and certainly have not overlapped in the unraveling history of climate change.

*History of industrialization.* Historically, industrialization has been limited to our technological development. As a result, our ability to use fuel had been limited to the development of the tools that would enable us to industrialize the globe. For instance, the introduction of lumber as a fuel source replaced water usage, and the introduction of accessible oil replaced the use of lumber as a fuel source. Technology has helped us become more efficient in our daily practices, but has also enabled us to consume more quickly and in higher quantities. Much of the technology we take for granted in developed countries today, allow us ease of life

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<sup>23</sup> Wolfgang Behringer, *A Cultural History of Climate Change* (Munich: Polity Press, 2007), vii.

that is not afforded equally around the globe. Further, while many advancements in technology have revolutionized our agricultural practices, capability to travel, and daily tasks, these practices carry the cost of the resources and energy used to carry them out. For the ecosystem, this means expedient and wasteful practices that deplete resources at a higher rate than they are able to be replenished. This phenomenon of using more than is able to be replenished is called unsustainable practice, which marks most human practices we engage in today. Only recently as manifestations of climate change become unavoidable have certain countries and cities taken initiatives to engage in sustainable practices; that is, practices that renew resources as they are consumed, so that the practice could be extended indefinitely. This is possible with the usage of renewable resources, and careful consideration of the use of finite resources, that have been historically, and in most cases continue to be, abused.

*Resource use through the ages.* Resources were not always abused and overused, however. In fact, the exponential use of resources began as the industrial revolution arrived to develop nations. As industrialization became more refined, and vehicles were used to expedite production, a greater reliance on unsustainable fuel sources emerged. It is the industrial revolution that piqued pollutive practices and contributed factors such as energy overuse that makes climate change a growing and urgent concern. This resource overuse continued into the twenty first century, making this shift not a temporary one, but one that marked a continued history of the mismanagement of resources. These misused, and more often, overused resources quickly changed the climate, and which was quickly reflected in annual reports on weather and overall climate that are available to us today.

As early as the 1930s, meteorologists were announcing trends in annual data that showed a change in the weather and overall climate. Winters were becoming milder, fish populations were moving north, and weather cycles were changing.<sup>24</sup> However, attitudes toward these changes were not those of concern, and rather were simply observant or mildly interested in these changes.<sup>25</sup> In fact, a *New York Times* article published in August of 1952 said that people may look back on the warmer winters of the past few decades fondly, as a milder and more pleasant winter season.<sup>26</sup> These changes therefore did not shock those who heard about them in the twentieth century, and likely didn't strike them as an issue that would be pressing and absolutely urgent to resolve for the well-being of the Earth not even a century later. For some countries that did recognize climate change as occurring, these changes were viewed as positive, rather than distressing issues. Russia, for instance, views climate change as beneficial to their economy, showing that in the past and present there have been positive responses to climate change. Further, despite growing global alarm towards climate change, media coverage of these issues in countries like Russia remain low.<sup>27</sup> In many ways, there is a silencing of the true scope of environmental problems, where media in Russia doesn't cover the breadth of environmental problems, so it seems as if there are few problems at all.<sup>28</sup>

*Attitudes towards climate change.* In other parts of the world, the 1970s marked a time period where climate change was again beginning to gain traction as an issue that needed to be addressed rather than something people were aware of, but complacent with.<sup>29</sup> While this sense

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<sup>24</sup> Spencer R. Weart, *The Discovery of Global Warming* (Cambridge: Harvard University Press, 2008), 1.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid, 2.

<sup>27</sup> Marianna Poberezhskaya, *Communicating Climate Change in Russia: State and Propaganda* (New York: Routledge, 2016).

<sup>28</sup> Ibid.

<sup>29</sup> Wolfgang Behringer, *A Cultural History of Climate Change* (Munich: Polity Press, 2007), 1.

of importance did not begin to arrive until over a century after the industrial revolution, it marked a shift in cultural reception, albeit small. However, this shift was still not for the better for the environment; in fact, it displayed the shift in global warming in International Panel on Climate Change (IPCC) graphs, and made the increase in overall global temperature seem desirable, rather than a point of concern.<sup>30</sup> It was not until the late 20th century that the climate curve increased rapidly, raising eyebrows, and calling for a closer inspection to the cause of this trend.<sup>31</sup> As scientists drew attention to these changing patterns, cultural perspectives changed as well, and shifted to a sense of apprehension and awareness towards the world's changing climate.

*Cultural history of climate change.* The history of climate change is deeply intertwined with a cultural history as well, and cultural attitudes have changed drastically over the past two centuries. While many scientists explained climate change as an urgent call to action, and while most people now accept its reality, some people still deny this premise. While no one denies that there is a climate, and perhaps even that it is changing in some ways, many certainly claim that this change is not caused by human-sourced activities, and that it is natural, and does not require any shift in lifestyle.<sup>32</sup> To deny climate change as real today is to deny the science that demonstrates changes in the climate, rising sea levels, and increasing natural disasters. This denial has become difficult if not impossible to sustain in a world where this information is commonplace, and so easily accessible by a swift online search. While it is the general consensus of researchers that climate change is caused by human activity because of the close correlation between the two, the attitudes of climate change deniers still stand as a roadblock to initiating

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<sup>30</sup> Ibid, 3.

<sup>31</sup> Ibid, 4.

<sup>32</sup> Ibid.

action in ameliorating the negative effects of climate change, particularly when policy is involved.<sup>33</sup>

Those who do not accept that climate change is brought about by their practices, or do not wish to change their lifestyles often vote against candidates that support sustainable practices and environmentally-beneficial goals. Another commonplace thought among those who deny climate change as an issue is that even if it is real, that it will not affect them, or anyone for another couple generations.<sup>34</sup> While the United Nations and other research groups have said we have only decades to stop our unsustainable practices before it is too late to reverse the permanent damage done to the Earth, many people see this time frame as long enough that it will not be a problem of their lifetime, deferring action to younger generations. This attitude towards climate change is still prevalent today, as many middle-aged or older adults from older generations, to those born in the last quarter century take the view that climate change will not profoundly change their lifestyles, and therefore it is not worthwhile to pour time and financial resources into this growing problem.

Climate change therefore becomes an issue to be picked up by younger generations, who have grown up with these environmental changes as pressing social issues of their time. The members of this generation are in many ways motivated to care about climate change and its effects because it is something that will affect their entire lives, and their children's lives, if they choose to have them. It has also been common for younger generations to learn about climate change in their science curriculum, as a current event issue. However, climate change is not a selfish problem; it affects people globally, of all ages, and makes the conditions that human

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<sup>33</sup> Wolfgang Behringer, *A Cultural History of Climate Change* (Munich: Polity Press, 2007), 6.

<sup>34</sup> Spencer R. Weart, *The Discovery of Global Warming* (Cambridge: Harvard University Press, 2008), 24.

beings live in worse, without discrimination. The rhetoric of climate change indicates a global problem, too. The movement from the phrase “global warming” to “global climate change” indicated a shift from misinformation to education, noting that global environmental changes do not necessitate the warming of the environment in all cases, but rather a slew of problems arising from human activity around the world. While temperatures are increasing, and this causes many problems for humans and other agents alike, other factors of the climate are changing too, such as rising sea levels, an increase of hurricanes, and a loss of global habitat that will impact the globe, on massive scales. It is therefore worthwhile to care about climate change, and to keep up with its changing history. It is worthwhile to listen to scientists who keep track of different trends in the environment that indicate human activity is extremely likely to be the cause of the degradation of the natural world.

*Technology on increased greenhouse gases.* Most notably, we have degraded and changed the world’s atmosphere with our fossil fuel use.<sup>35</sup> Historically, as fossil fuel use increased, and greenhouse gasses were being released into the environment as a result, climate change worsened at almost the exact rate that greenhouse gas emissions were released. It is important to note that all of modern society was built on fossil fuel use, therefore there is a need to change how the world works and how we harvest our energy in order to effectively address the issues tied up with climate change. What is most alarming about attitudes towards climate change through history is its direct correlation to human well-being, and that despite this correlation, not all human beings seem to care. Some argue that it is only human beings’ adaptive growth to our environment that has enabled us to live this long, in the climate we are currently

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<sup>35</sup> Benjamin Lieberman and Elizabeth Gordon, *Climate Change in Human History: Prehistory to the Present* (2008), 15.

in.<sup>36</sup> Certainly, the advancement and adaptation of technology has allowed us to improve agriculture, healthcare, and other major aspects of human life. Without these adaptations and rapid growth in these fields, the human population would not be as large as it is today. With the ability to grow great quantities of food and transport it around the world, and the ability to develop medicines and cures for many ailments, the human population has benefited greatly; however, this is not the case for all people. It appears that with the degradation of the environment, we are also inadvertently degrading the health of many human populations, some of which are only so successful because of their ability to utilize advanced technology, while some still suffer lack of basic necessities. Many poorer populations suffer because of the lack of these advancements, where agricultural and medical benefits have not reached them and will not reach them unless steps are taken to improve the quality of life for all people. For many people, and in fact, an enormous chunk of the total global population, health is degrading not only because of a lack of access to the resources we benefit from in developed countries, but also at the hand of the symptoms of climate change.

*Preparing for the future.* Some cities are already preparing for a degradation of health and other factors at the hand of climate change. The very thought of planning for damage control of climate change shows that an issue on such a large scale requires planning and extreme steps to be taken, if it is to be met as a realistic concern. This is exactly the case in New Orleans, Louisiana, where rising sea levels threaten the integrity of the city. This is the case for many coastal cities in the United States, too, and many other islands globally. Cities such as Miami and New York City are threatened by rising sea levels that will envelop parts of, or the whole city,

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<sup>36</sup> John L. Brooke, *Climate Change and the Course of Global History: A Rough Journey* (Cambridge University Press, 2014), 3.

similarly to other islands around the globe. With rising sea levels and melting glaciers, any island space or human-inhabited town near a coastline are at risk. Strong storms and hurricanes also pose enormous threats to coastal areas. Hurricane Sandy is memorable to most people living on the east coast of the United States in 2012 as it destroyed hundreds of miles of coastland, that is still being repaired almost a decade later. Strong storms have become more common as the climate changes, and most cities and coastal zones are not prepared for their impact. While many architects, engineers, and designers have proposed solutions for lessening these storms' impact when they do hit, there is no way to prevent them altogether, meaning that as long as people are living near water, their homes and their lives are potentially at risk.

In the United States, while residents may be able to move further inland or to another state further from the ocean coastline, many people in other parts of the world will become refugees as a result of their lost home country. This is especially the case for those living on islands, who have no other land to move to, forcing them to leave, and making them environmental migrants, or climate refugees. Planning is already in progress for the loss of these cities and countries, which speaks to the severity and urgency of these issues. Scientists are already able to map out the inches in which water will rise annually, and are able to project just how long it will be before many places people call "home" will be underwater. Further, it is predicted that refugees from countries that will no longer exist will face a number of other issues spanning from health problems, lack of shelter, and even land wars as they are forced into and perhaps not accepted by other countries. Cultural aspects of moving as a result of climate change is harrowing to say the least; for environmental migrants, their home and culture will be lost in its entirety, becoming a real-life Atlantis, where all that is left of their homes is what little can be

brought to the new land that these refugees will end up in. In this way, we can see how climate change is a direct threat to the human population, in both physical and cultural ways.

*Global impact of changes in the environment.* The degradation of the environment is bad not only for the human population but for other species as well, who suffer at the hand of the consequences of human activity. Climate change has led to the extinction and speciation of a multitude of species, and is increasing at a rate of 100 - 1000 more than it has in the past.<sup>37</sup> This is due to the changing climate cycles over time, that have disrupted the life cycles of many other species.<sup>38</sup> Thus, climate change has had a dark history not only for the human population, but for the non-human population as well, who have suffered most from a loss of habitat, or have been eradicated completely through mass extinctions. Plants are also greatly at risk, particularly as areas are clear cut, causing a loss to biodiversity. This is detrimental not only to the agents themselves as they become endangered and eventually extinct, but indirectly to the human population too, as many medicines we benefit from come from plants, that are eradicated when we destroy habitats and ecosystems. Therefore, when speaking of climate change as a global problem, it is exactly that; it is a problem that literally envelops the globe, affecting all agents, human and non-human alike, that inhabit its subsequent ecosystems. Thus when climate change is addressed as an urgent issue, it is not only because of its magnitude, but also because of its scope, and because it affects all global citizens negatively.

Later in this paper I will treat the negative impacts of human activity on non-human agents, addressing how increased population sizes exacerbate climate change, threatening human and non-human agents alike. Addressing the economic impacts of a decreased working

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<sup>37</sup> John L. Brooke, *Climate Change and the Course of Global History: A Rough Journey* (Cambridge University Press, 2014), 59.

<sup>38</sup> *Ibid.*

population size, will enable an evaluate of the impact on the aging older population. In this section I will touch on ethical considerations of a decreased population size, and evaluate the ethical dissonance between personal autonomy and global responsibility by contrasting utilitarianism with libertarianism. The following chapters will also evaluate policies and incentives for a decreased global population size, considering different challenges of various countries, and individual recommendations for alternative resource use.

### **Chapter 3. Economic Impacts of a Reduced Working Population**

All of modern society relies on the environment and ecosystem services, and has built economies on the ecosystem services transformed into goods and services that have been provided to us by the Earth. In order to bolster a growing economy, many of these ecosystem services and resources are overused or abused, and treated not as an ends, but as a means to the end of increasing financial capital and security. It may seem intuitive that with limited resources comes a limit to the ability of which we are able to use these resources; however, it is the creed in modern economics that a successful economy is one that is constantly growing. This means that if more profit is not achieved each year, the economy has failed in some way and is considered in crisis. In order to turn a profit, sales of some good must increase. In developed countries, where energy and resources are commodified, consumption does increase to meet the demand for these products. When looking at economics from an environmental perspective, we can see that this model simply is not possible when considering the environmental stability of the future. We are faced with limits of resources, more than our ability to extract or manipulate them. While we have current and advanced technology that enables us to fulfill our consumptive

desires, we are blocked by the quantity of resources available to us, or will be soon if we wish to continue this current model. If financial growth relies on the production and manipulation of natural resources, and these resources are finite, how can we expect financial growth to be infinite?

*Barriers to implementing new models.* The idea that economies must grow infinitely is the most pressing economic issue that stands as a barrier to achieving sustainable resource consumption. This model of economics is consumptive in nature, which opposes environmental ideals of conservation and sustainability. However, this is the very cornerstone of economics, where a “successful” economy is measured in its annual growth. It is important to understand the weight of this economic model. It is the current archetype for developed countries, and to remove or alter it would be cause for alarm in the countries with the highest gross domestic product (GDP), who have always employed this model. However, this type of economy threatens ecosystem services and sustainability directly. Many practices are not carried out with future generations in mind, or even with regard to near future use of current resources that are heavily relied upon, such as natural gas or oil. In order to protect or even maintain the resources we have currently, we must adjust this current model for economic growth.

In order to model an economy that considers resources and their consumption, the current model of infinite growth must be adjusted, as the resources needed to fulfill infinite economic growth are not themselves infinite. The adjusted model would be one that advocates for the sustainable and modest use of resources. This model would account for the limited resources that are available to use, and can accommodate a steady use of these resources over time. This shift away from fossil fuels and nonrenewable resources is critical for the future health of our planet.

For younger generations who will live to see the effects of climate change in their lifetimes, this economic shift is critical to the reduction of damage being done in order to have future resources available at all. For these younger generations, a shift in the way the economy works may not be an ideal situation, but is recognized as necessary nonetheless, as current practices cannot physically be carried on into the future, particularly if goals regarding any sort of quality of life is to be achieved. As population sizes continue to grow, a deficit of resources as aggravated by the current economic model will further divide the populations that have access to high qualities of life and those living in extreme poverty. Competition for resources will drive many human beings into poverty who were not living that way before, as only those in developed countries with economic infrastructure, or those with great wealth will be able to afford these commodities. Where over 2 billion people are currently living below the poverty line, and with hundreds of millions more living without access to clean water or basic medical care, quality of life will certainly decrease. With a greater global goal of increasing quality of life, it is nonsensical to think that both the reliance on this economic model and population growth will not nosedive quality of life for the human race. The first step to achieving sustainability is of course, to acknowledge it, or the lack thereof in our modern economic practices. Once we adjust our expectations regarding the unrealistic constant growth of economies, we can then account for the lapses and loss in revenue that will be caused by this shift.

*Poverty in developing countries.* Regard for the environment and all of its agents can be achieved if human beings leave as little trace and inflict as little damage as possible. One way to do this is to synthesize and utilize only renewable resources, which would necessitate a complete shift from our reliance on fossil fuels and other commodities. Another way to achieve similar

ends is to reduce global population size so that the smaller population could enjoy a higher quality of life. With a smaller total population, resources would spread more evenly, and fewer people would exist to abuse the resources of the Earth. Most importantly, perhaps, is that the remaining population would enjoy a much higher quality of life, with fewer people finding themselves in poverty, and a greater percentage of the population living without basic needs.

Even in developed countries, poverty is pervasive. In 2017, the U.S. Census Bureau reported that poverty in the United States was 12.3%.<sup>39</sup> This statistic shows that even in developed countries, poverty is present in high numbers. The United States has the highest current GDP of all countries, and is considered a developed country. Still, poverty effects more than 1 in every 10 people, as the Census revealed in 2017. This information is neither hidden nor surprising for those living even in developed countries such as the United States. Anyone can access this information online as the United States regularly collects Census information on its citizens, as well as see this extreme poverty by walking on city blocks in urban areas. Those living in developing countries find themselves in an even worse situation, where poverty rates are much higher. Globally, approximately 10.9% of the overall population was living under \$2 per day, as of 2018.<sup>40</sup> For comparison, the international line for extreme poverty is classified as living under \$1.90 per day.<sup>41</sup> To understand that approximately half a million people are living extremely low qualities of life, with high statistics living in poverty even in developed countries such as the United States is not only shocking and sickening, but shows that quality of life is

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<sup>39</sup> Kayla Fontenot, *Income and Poverty in the United States: 2017* (United States Census Bureau, September 12 2018, <https://www.census.gov/library/publications/2018/demo/p60-263.html>).

<sup>40</sup> *9 World Poverty Statistics that Everyone Should Know* (Lifewater, August 2 2018, <https://lifewater.org/blog/9-world-poverty-statistics-to-know-today/>).

<sup>41</sup> Ibid.

certainly a factor to be considered when discussing future economic plans, particularly when quality of life is so closely connected with issues such as resource use and aligned with sustainability goals.

*A new economic model.* An economic model that calls for adjustment based on a decreased population will pursue the goal of considering environmental and human well-being for the future, two factors that are sorely needed and ought to be aggressively pursued. While this will negatively impact economies as we know them, an adjusted economic model and outlook that accounts for stability rather than constant growth can be achieved and planned for, such that immediate negative effects of decreasing the global population size will not spiral devastating effects to current economies. Careful planning also allows us to treat other necessary symptoms of a changing economy, which will be addressed shortly.

if we are able to predict the way it will change, we can mitigate certain financial problems before of as they occur, such as how to care for an aging population in terms of their financial needs. When planning for a dip in birth rates, we are able to account for a decreased working population size with a large older generation. This will affect older generations negatively as they retire and rely on the younger working population to account for certain government costs. By planning ahead for these changes, we will be able to treat some of these negative effects and contrive solutions that will lessen the negative economic impact when the younger generations begin to enter the workforce.

*Economic assumptions.* There are many other impacts on the economy that will occur as a result of a changing population size. Another assumption with the current economic model is

that the population will increase to infinity, offering a consistently growing working class.<sup>42</sup> However, this, like unlimited resource availability, is simply not possible, as the population cannot increase to infinity. This is due to a lack of the net resources available to increase our carrying capacity to infinity, as well as an eventual lack of space. Further, it is notable that we face a high quality of life only when human population sizes are optimal, and are not too high.<sup>43</sup> Although we have accommodated an extremely large human population size with growing technologies, there is a limit to the maladies we can ward off even with technological growth. While a human population size that stretches towards infinity may be good for economies when considering the current economic model, this model is neither sustainable nor possible to maintain in the future, thus must be discounted when facing the current economic issues we grapple with. Once we discard the notion that populations can continue to grow towards infinity without restriction, our own economic model becomes unsustainable, and is revealed as one that is built on a foundation that can not continue into the future.

*Consuming less.* Many factors can impact economies, especially when proposing less consumptive practices. A decreased population size certainly would cause a number of negative effects to the economy, by virtue of a limited working class. Even if we do propose such a change in the economy so that limited resources are accounted for, proposing a decreased population size will result in a smaller working population overall. A call to reduce global population size will most immediately affect the youngest generations, resulting in fewer babies being born while the current older generations continue to age. While this call for a reduction in population size will reduce global population size significantly once older generations are

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<sup>42</sup> Dieter Bös, *Fiscal Implications of a Growing Population* (Springer-Verlag, 1965), 43.

<sup>43</sup> *Ibid*, 65.

replaced entirely, until that time, we will face the economic issue of caring for a retiring generation when there are fewer young people comprising the working population. A large imbalance between the ends of the younger and older generations is detrimental for the older generations who rely on an equally sized or larger young working class. This indicates that the path to a decreased population size will create economic issues for older generations, and will cause problems for the older generations as they retire and rely on savings and government benefits that are fed by the younger working class. This exact instance is a large economic issue currently in some countries that already have negative population growth, such as Denmark. Population decline occurs when there are more deaths than births in a country, and more net loss than gain, where the country experiences a decline in overall population because of it. The sustenance of Denmark's economy relies on maintaining or increasing its working population size, however fewer couples are choosing to start families, resulting in negative population growth that is negatively affecting their economy.

Denmark is unique in this economic issue as most other countries, particularly developed countries such as Denmark, have positive population growth curves, and do not face this issue. Though uncommon, other countries are in similar positions, still. Another developed country with a declining population is Japan, with a significantly larger older population than a younger one, as life expectancy has increased and many couples are having only one child as opposed to two or three, resulting in fewer annual births that have over time decreased the population size of Japan by millions of people. It also results in a growing older population, as those in older generations continue to get older, with fewer new citizens to replace them. But what does this mean for economies? Older retiring citizens receive pensions, that are given upon retirement by

the government; pensions are paid through taxation, however this becomes problematic when there are fewer young working individuals to tax, as a proposed decrease in population would mean they simply do not exist. What this means is a lack of funding for the older generations, who rely on younger working individuals to pay into their pensions as they had paid into their older generations' pensions, and so on. In other words, the younger populations that pay into pensions will decrease while the beneficiaries of pensions continue to grow.<sup>44</sup> This is the chief concern of many older individuals, who realize these repercussions and worry for their own future as they would continue to age in a world where fewer individuals would be born.

*Medical care and other factors to consider.* From the perspective that economies must always be growing, a decreased working population is a blockade in this agenda. It is problematic not only for the older generation's retirement fund, but also with other costs associated to age, namely medical costs. On average, medical costs for those over the age of 65 are double that of those under the age of 65.<sup>45</sup> These medical costs are peripheral, but often central barriers in life that must be addressed, where healthcare and the ability to treat sudden illnesses are considered necessary in developed countries. Having the funds or protection of medical care is crucial to life, and therefore must be accounted for when considering an ageing population, especially as older demographics are the highest reliant on medical care. These are factors that need to be taken into consideration when countries face population decline either purposely, or unintentionally. The most feasible solution for these economic issues are to incorporate these realities into policies, such that factors such as health, welfare, and social security are secured.<sup>46</sup> Some economic models have already accounted for this shift and have

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<sup>44</sup> *Policy Responses to Population Decline and Aging* (United Nations Publishing Section, 2004), 238.

<sup>45</sup> *Ibid*, 237.

<sup>46</sup> *Ibid*, 244.

produced successful financial growth models by accounting for public health, family planning, education, and policies that are labor-market flexible with openness to trade.<sup>47</sup> Countries in this position must seize this valuable window of enacting effective policy changes so that an aging demographic that is pension-reliant will be well cared for by absorbing extra labor productively in the market.<sup>48</sup>

*Why a population decline is necessary.* It is clear that accounting for economic difficulties in the case of a decreasing population is necessary and valuable, and imperative in a developed and conscientious society. While it is difficult to model how to transition to population decline globally because few countries have successfully done this, we can look towards modeling and a shifted financial outlook to map how we might still have a stable economy despite a diminished working population size. Enacting policy ahead of time that organizes funding, offers healthcare plans for the growing elderly population, and accounts for pensions that are not fed into as greatly by a younger population are all valuable steps in transitioning from a growing population to a declining population, as any restriction in birth rate will result in a larger older population size as compared to the younger population size. Economic impact is one of the more inflammatory issues of calling for a reduction in population size as it will affect not only the country's economy, but global economies as well, as countries trade and market with one another. Therefore, a change in economy should not be seen as necessarily bad, but something to be considered seriously when considering decreasing the global human population, and something that if carefully planned for will not be a barrier in decreasing global population size.

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<sup>47</sup> David Bloom, *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change* (RAND, 2003), xiii.

<sup>48</sup> Ibid.

A decreased population size carries many benefits with it, because growth itself decreases planetary resources. This is connected to the amount the population consumes, and related effects, such as working hours. A higher quality of life brings with it not only access to medical care and basic resources such as food and clean water, but also increased levels of happiness. A happier overall population will be achieved when population sizes decrease, and the working class will be able to work shorter work weeks, as a result. This can be achieved by balancing work with workers, where the working class will need to work only four day work-weeks, as opposed to the current five-day work weeks. This is the Plenitude model for economies, where people are able to work less, consume less, and build social capital rather than consume “things,” or material goods. This is one way that we can take responsibility for our lifestyles, and give not only ourselves, but the environment a break too, by consuming less. Quality of life also increases as population size decreases, as we are able to spread our resources more plentifully among the smaller population. In fact, shifting what we consider valuable affects our well-being too. When we place less value on material goods and more value on experiences that are healthy and inspire happiness within us, we see a shift in how we might measure well-being. Things that are often overlooked but are still valuable to the mental and cultural aspects of human nature are leisure, access to the outdoors, and community. Countries with a low GDP but a high measurement of well-being tend to be those that have access to these types of goods. This proves that developed countries, such as Denmark, can produce extremely happy and well cared for individuals while having lower GDPs, because their access to these cultural resources are valued highly and are available to its citizens.

This follows the idea that the well-being of a country might be measured on a non-monetary scale. The genuine progress indicator is one of the models that proposes replacing or supplementing the GDP with environmental and social factors that are not accounted for in the GDP as a metric for the overall well-being of a country. This is a shift in mentality that could impact economic modelling of the future. By having a metric that takes into account other factors besides financial gain in representing the well-being of a country, it does not become so devastating when countries do not meet their financial goals, or do not have constant financial growth. In fact, many developed countries with high happiness ratings are those that do not have a high GDP comparatively to the rest of the world, but benefit from well-managed environmental and cultural practices, showing the possibility of a country's well-being even when their financial state is not among the highest ranking, globally.

#### **Chapter 4. Is it Ethical to Reduce Global Human Population and Limit Freedom?**

A philosophical perspective is not only useful but necessary when examining the possibility of a reduced population size, particularly in the more specific scope of its implications for human agency. As human population size is projected to grow exponentially, it cannot realistically be expected to stabilize or decrease without legal enforcement or incentives to carry out this desired end result of a stunted or reduced overall human population size. The reason why the Earth is overpopulated today is because of falling death rates, and birth rates that are not low enough to combat the extended lives of millions.<sup>49</sup> That is to say that improved technologies and medicine have allowed populations to live longer, raising the average age of death globally, and

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<sup>49</sup> G. Tyler Miller, Jr. and Scott E. Spoolman, *Living in the Environment* (Brooks/Cole, 2012), 126.

reducing the total number of deaths annually. This improved quality of life, and therefore extended life is a product of improved sanitation and general healthcare, as well as advancements in medicine that help fight disease and illnesses.<sup>50</sup> We now have the ability to treat preventable diseases such as the flu and chickenpox, and engage in practices such as immunization, as well as drug development, that has enabled the human population to prevent and overcome diseases that formerly were fatal to millions.<sup>51</sup> The growth and research of the medical and pharmaceutical fields have been particularly prolific in preventing and treating illnesses that have contributed to the overall well-being of the human population over the past few decades. But how does philosophy qualify this sort of information?

People are living much longer than before, resulting in an overall population increase, that has become threatening to not only future life, but current life on Earth today, human and nonhuman alike. However, although the most effective way to reduce overall population sizes is to increase the death rate, such action is impossible to justify within reasonable means, and directly opposes to what is perceived as correct ethical action. Therefore, the problem of an increasing population size must be modified through reduced birth rates. However, the current birth rate cannot combat population growth because it too is increasing, and would need to decrease sharply to combat the decreased birth rates we experience today. This is the basis for a proposed decreased global population size, and requires both an understanding of human attitudes, as well as ethical implications that follow a limited birth rate.

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<sup>50</sup> Ibid.

<sup>51</sup> Ibid.

*Human attitudes towards growth and libertarianism.* The current growing population size does offer insight into the mindset of the human populus by showing a lack of regard for resource and energy consumption over the personal choice of growing large families. It would be logical to assume that if the current population was concerned with the lack of the Earth's ability to sustain such a large population size, concerned individuals would take conscious steps to limit family sizes out of ethical obligation. However, though it is unlikely that the vast population has no ethical direction, or is unconcerned with the welfare of the Earth and its resources, the continued growing population size indicates that this concern is not great enough to limit the growth of the human population. Further, while many individuals do identify as environmentally concerned, few engage in meaningful practices that address the real life implications of their concern.

When citizens do not act on their own accord to amend issues that are in their hands, policy is an effective way to ensure that action is taken to reach the desired goal. It is often the case that society is not ethically motivated, or perhaps ethically motivated enough to exist without a strict set of laws and rules regulating behavior and actions. It is simply not enough in enacting change that people recognize reducing climate change as their ethical responsibility, if it is even recognized as such.<sup>52</sup> In the case of human population size, it seems unlikely, if not impossible, that there will be a stunted or decreased population size without the introduction of necessary legislation that dictates a limit to the birth rate through legislation or incentives. This addition of policy change poses a twofold ethical dilemma, however: first, the quandary that such policy is needed to, in many ways, save the Earth, and second, that such a policy would be in

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<sup>52</sup> Kathleen Dean Moore and Michael P. Nelson, *Moral Ground: Ethical Action for a Planet in Peril* (Trinity University Press, 2010), xvi.

direct conflict with personal choice, taking away the autonomy to choose what one does with their own body. To have the freedom of choice is essential to the core values of many people, and is certainly the case in American society. To say that one is not able, or not permitted to have as many children as they would like to stands in direct conflict with their freedom to make this sort of choice. That is not only choice objectively, but also choice of what one can or cannot do with their body. To take away this agency would be to many, inhumane and unethical in itself.

*Utilitarianism and the greater good.* While it would be ethically questionable to take away a person's agency in deciding the magnitude of family size they are permitted, it is similarly questionable to degrade the Earth in order to allow all people this freedom of choice. To allow an exponentially growing population size to continue to grow is to negate the value of the environment that supports all life, and to approve of a diminished quality of life for hundreds of millions, for the cause of personal choice. Therefore, in order to fully examine all aspects of making a comprehensive ethical decision, we must also examine different aspects of philosophy that might offer insight to how to act well and towards the greatest good. It is important to note that there is no definitive correct ethical solution to the exchange of a limit of the birth rate for the good of the Earth. This is because ethics itself is nuanced, and some will always feel cheated as sacrifices are required of certain stakeholders. There is no way to satisfy the wants and desires of all, and so we must consider the benefits of inflicting the greatest possible good or most sustainable practices.

One way to measure the outcome that achieves the greatest good is to evaluate utilitarianism, that seeks to create the greatest amount of happiness for the greatest number of

people.<sup>53</sup> Central to utilitarianism is the disregard of libertarianism, which is the concept of acting towards personal freedom.<sup>54</sup> Libertarianism has become a cultural phenomenon, especially in countries such as America, where core values like individualism, choice, and freedom to pursue wants prevail. Libertarianism breeds an allegiance to the individual, rather than the community, and considers what is best for the individual rather than the group.<sup>55</sup> Because of this, it is clear that utilitarianism disregards libertarianism, as it acts for the greater good, rather than the good of the individual. Similarly, libertarianism would act in opposition to utilitarianism, rejecting the relinquishing of choice for the greater good of the planet.

*Analysis of libertarianism and utilitarianism with environmental goals.* While there is no way to say for certain that either perspective is entirely correct, there is a way to analyze both in the context that we are working with, which is to the benefit of the environment. We have already established that there is no way to continue our current practices and achieve sustainability; in fact, we know that we must stunt and reverse many of our anthropocentric practices in order to prevent the depletion of Earth's resources. Thus, working towards the good of the environment, it seems that libertarianism would work against the sustainability goals we have in place today. In many ways, libertarianism has created the environmental catastrophes we find ourselves in currently. It is because we wished to advance as a society, live comfortably, and have disregarded management practices as well as have overused our share of resources in the process, that the Earth has suffered as a result. It was by no consideration to the Earth that it came to be abused and its resources depleted, but our own selfish desires to fulfill our own

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<sup>53</sup> *Utilitarianism*, Stanford Encyclopedia of Philosophy (September 22, 2014, <https://plato.stanford.edu/entries/utilitarianism-history/>).

<sup>54</sup> *Libertarianism*, Stanford Encyclopedia of Philosophy (January 28, 2019, <https://plato.stanford.edu/entries/libertarianism/>).

<sup>55</sup> *Ibid.*

unsustainable wants and needs. Even when we speak of those responsible for the degradation of the natural environment, it is a small slice of the total global population size. This means that the libertarianism of those in developed countries has masked the needs of not only the Earth, but of other human beings, namely those who live in developing countries, that have little to no access to the same resources and goods that American citizens, for example, have access to. Those who overuse and those who lack are disproportionate in size, where the few over-users negatively impact a much larger population size through their overconsumption.

Therefore, we cannot say even that libertarianism acts towards a greater good accidentally, but almost always acts to the benefit of a small group without regard or consideration towards the other effects of other stakeholder groups. Utilitarianism therefore, would certainly retaliate by making a case for the environment in this current situation, as what creates the most happiness for the most people would be to preserve the Earth and its resources, and would work towards preserving the home of all people, acting directly and indirectly to benefit the entire population, rather than a small portion of it. Whether groups want to work towards a more sustainable world or not, the existence of a protected and sustainable approach to resource management will benefit all human beings. This will happen through the availability of clean water, air, access to resource use, and the protection of the overall natural world that provides us with all the assets we need for survival and development. Therefore, it is possible to say that the preservation of the natural world is beneficial to all humans, and indeed, to all living agents as well. It follows too that having a smaller population size with a higher quality of life will be beneficial to all living agents.

*Utilitarianism and other agents and stakeholders.* A unique perspective of utilitarianism is that it considers not only human agents, but nonhuman agents as well. Considering what is best for nonhuman agents alone, the preservation of the environment is the optimal choice, as it is home to all of these nonhuman agents. In fact, since nonhuman agents far outnumber human agents, environmental sustainability is certainly the ideal utilitarian choice, as the greatest happiness for the greatest amount of agents would mean the needs of nonhuman agents would be met over the wants of human agents. This is because the desires of human beings cannot be said to be greater than an animal's right to live. For example, utilitarianism would not support clear cutting an area of land for industrial building purposes if it posed a threat or direct harm to the animals that live in that area, which it almost always does. That is to say that human want does not outweigh the right to life of nonhuman agents, which utilitarianism does consider. This runs parallel to the argument that a small group's want for freedom to choose family size does not outweigh the right to life of other human beings, especially because more people globally dooms not only other people to a lower quality of life, but non-human agents too, as resources are depleted and human activity contributes to global climate change, making living situations for humans and non-humans alike disastrous.

This argument is used too when discussing the consumption of meat, where utilitarianism claims an animal's right to live outweighs a human being's desire to eat meat because of their affinity for the taste. Because of this, utilitarianism would say that human abuse of the environment is unethical, even when disregarding the wants and desires of other human beings, because of the detriments it inflicts on nonhuman agents. The number of animals that are displaced due to human activity directly is immeasurable, and those that go extinct because of

human lifestyle choices, or those that suffer at our hands is even larger. Human involvement in the natural world almost always spells disaster for all other life. Human beings clear cut forests, burn fossil fuels, and cause habitat destruction, which spells disaster for all other life.

*Anthropocentrism alone.* Even if we wish to disregard nonhuman agents, and focus only on human beings, a utilitarian measure of ethical action would still proposition the protection of the environment because of two reasons: firstly, because of human beings living in poverty, who are disproportionately affected by climate change, and secondly, because of future stakeholders, who are often disregarded because they do not yet exist. Nearly half of the world's total population lives in poverty, without access to basic necessities, let alone many of the amenities that people living in first world countries enjoy. Those living in poverty do not have clean air, water, or even their basic medical needs met, and are affected most negatively by climate change. For these people, indirectly, attention to the preservation of the environment is beneficial as it will benefit their living conditions. In fact, the care of the environment is beneficial for all people, who will enjoy clean air, water, and other shared resources. Further, because climate change impacts not only the global temperature, but weather patterns, storms, and other large-scale phenomenon, it is in the best interest of all people to reduce unnatural and aggravated events that frequently cause havoc on various parts of the world. A smaller population size implicates a smaller human footprint left on the world, which is beneficial for all people, who consume and live among shared resources, some of which are difficult to regulate, such as air quality. Having as little a negative influence on these shared resources as possible will result in the best outcome for all people. Realizing that all resources are in fact shared resources ought to

only increase the motivation of all people to protect them, and to prevent future harm, which is inevitable.

*People's' attitudes in ideology v. action.* Most people do identify as environmentally concerned even if they vote for environmentally abusive candidates.<sup>56</sup> This indicates that even those in first world countries who consider themselves environmentally conscious. What many people do not realize, or perhaps do not care about enough, is that the preservation of the environment is to the benefit of all people, not only those living in developing countries. Because we live in the natural world and benefit from resources that we share, it follows logic that we would want to conserve that which we rely on, which can only be achieved through the protection of the natural world.

Another stakeholder group that is often forgotten is future generations, who do not have the ability to speak up for their interests because they simply do not exist yet.<sup>57</sup> These are the children who will inherit the Earth long after we are gone, who will be left to deal with the consequences of our environmental decisions, whether sound or abusive. This is a large barrier in current environmental decisions, where many do not want to put in the effort or finances to protect the environment as it is not dire for those individuals right now; however, this will not be the case for future generations, who will be forced to deal with the repercussions of the current population's consumptive practices. A utilitarian perspective would evaluate the deterioration of the environment as an event that would prove catastrophic for future generations, which will exceed in number the current population size as time extends towards infinity. Thus, utilitarianism would claim that even insularly among human beings, it is for the good of many

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<sup>56</sup> Ronald Sandler, *Environmental Justice and Environmentalism: The Social Justice Challenge to the Environmental Movement* (MIT Press, 2007), 85.

<sup>57</sup> *Ibid*, 92.

current human beings and future generations to have a functioning and healthy Earth.<sup>58</sup> For this reason, utilitarianism would also claim that the correct thing to do is to do what is necessary to protect the Earth and its resources, even if it comes as an inconvenience to the current human population.

*Targeting countries with the highest population sizes.* The need to reduce consumption of the Earth's resources leads us to the question of population size once more. We have previously discussed the unlikelihood of people taking initiative to create a more sustainable world and the necessity for action to be taken from a philosophical perspective. Utilitarianism, in direct opposition to libertarianism, would argue the needs of existing human beings, future generations, and the needs of nonhuman agents outweigh the wants of the current human population whose unsustainable practices continue to contribute to climate change. Thus we have grappled with the potentiality of reducing the global population size as a means to creating a more sustainable world. But even this poses steep ethical questions. To decrease the global population size, a restriction on the birth rate would need to be imposed, particularly in countries where the population size is drastically higher than any other country in the world, namely China and India.

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What is important to address is the question of individual autonomy. That is the discussion of whether the state can impose policies that limit the number of children that people are permitted to have. To have a policy like this would limit the autonomy of human beings by indicating that they could not choose what to do with their own bodies, for the good of the Earth, in order to reduce the overall population size, or stunt its growth. When we speak of enacting

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<sup>58</sup> Kathleen Dean Moore and Michael P. Nelson, *Moral Ground: Ethical Action for a Planet in Peril* (Trinity University Press 2010), 15.

<sup>59</sup> The United Nations, *World Urbanization Prospects: The 2003 Revision* (United Nations Publication 2004), 67.

these sorts of policies, we would like to target countries with fast growing population sizes, whose population sizes are disproportionately large as compared to the rest of the world. In fact, 99% of all new human beings born in 2010 were born in middle and low-income developing countries, with a projected 95% of the 2.7 additional billion to be born into less-developed countries.<sup>60</sup> The populations of China and India alone account for almost half of the rural population of the world.<sup>61</sup> To combat high population sizes, China has already enacted a one child policy, that has controlled the reproductive habits of over one billion individuals.<sup>62</sup> This imposition was very much that: a rule that was given to Chinese citizens whose intentions were to limit population sizes in China in order to lift a group of almost three hundred million from poverty.<sup>63</sup> Results of the One Child Policy did include a decreased growth rate, however negative effects occurred as a result of the desire to decrease the population too quickly. Since its proposition in 1980, the One Child Policy has since been changed to a Two Child Policy, as of 2015.<sup>64</sup> What is lesser known about the One Child Policy is that citizens of China who lived in the countryside, as well as farmers, fishermen, and coal miners, were not limited to having only one child.<sup>65</sup> Thus, the One Child Policy targeted the greater portion of the population and those living in dense areas. When targeting the areas of the world with the densest populations, our attention is drawn once again to China, and also to India.

*Future policies.* China and India are selected purely for their high current population sizes, that are drastically greater than the population sizes of any other countries. We question

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<sup>60</sup> G. Tyler Miller, Jr. and Scott E. Spoolman, *Living in the Environment* (Brooks/Cole, 2012), 127.

<sup>61</sup> The United Nations, *World Urbanization Prospects: The 2003 Revision* (United Nations Publication 2004), 67.

<sup>62</sup> Mei Fong, *One Child: The Story of China's Most Radical Experiment* (Oneworld, 2016).

<sup>63</sup> *Ibid*, x.

<sup>64</sup> *Ibid*, xii.

<sup>65</sup> *Ibid*, 6.

too whether we can repeat a policy such as China's One Child Policy as a means to reduce the global population size. Evaluating the ethics of such a decision, despite the achievement of a smaller population size for the greater good of the Earth and future generations still takes away autonomy, and is therefore questionable. Because of this, and because people have shown historically that they will not voluntarily act for the greater good especially if it means restricting their own desires, we can only look towards policy to help us achieve these goals. Although it may be easier to enforce a rule stating that people cannot have more than one or even two children, this stands in the way of personal choice. Therefore, to achieve the desired result of a decreased birth rate while maintaining the integrity of choice, we might propose not policy that inflicts strict rules, but rather policy that taxes and rewards its citizens based on the number of children that individuals or couples choose to have. This way, people would still maintain the right to choose the size of their family, but would either benefit from tax cuts and other financial benefits, or would face increased taxes, based on family size. An in-depth discussion and breakdown on policy suggestions and incentives will be explained further in the following chapter. These policy suggestions will focus on incentivising people to have a smaller family, thus reducing the consumptive nature of human beings and increasing the ability for global resources to reach all human beings, living in the present as well as in the future.

## **Chapter 5. Policies for a Smaller and Better-Off Global Population**

In the previous chapter, we explored the possibility of limiting the birth rate in China and India due to their disproportionately high populations and what this would mean for personal choice and utility. Though it is impossible to discern correct ethical action in this situation, we

would likely face backlash if we instated a global cap on the number of children certain global citizens are permitted to have. Therefore, operating under the premiss that regardless of the global benefits of limiting the birth rate in some countries, it is not possible to enforce this policy while maintaining dignity and reproductive rights. Thus, in order to still achieve this goal without enforcing a law or punishing those who have larger families, I propose a policy implementation that will incentivise people living in China and India to have fewer children and smaller family sizes.

This policy will focus on incentivising people to have fewer children by offering large tax benefits for those with a smaller family size. This policy will function on a tier system, where fewer tax cuts are offered as people have more children, and taxes increase on families with more than two children. This means that those with only one child would benefit most from these incentives, followed by those with two children, and those who have had three or more children would be taxed more with each additional child the family had past two children. This monetary tier system would have the intention of rewarding those who elected to have smaller family sizes, and discourages, but does not prevent those who elect to have larger families.

The purpose of this policy enactment is chiefly to maintain the integrity of choice and to increase quality of life, as well as mindfulness. This directly addresses the philosophical issues raised in chapter four, where we explored the ethics of limiting choice for certain human beings. With the implementation of this policy that does not limit entirely, but rather operates by encouraging and discouraging people from having children, we still maintain choice, as anyone can have as many children they wish to. That is, provided they have the means to not only care for them, but pay a collateral cost, should they choose to have more than two children. It follows

logic that parents should have the means to financially support all the children they wish to bring into their families, thus it should not be a large leap for parents to also consider an additional tax for having large families. Further, it will be the responsibility of the parents to pay this family tax, as they chose to have many children, and is not the burden of the child, who like all children, do not ask to be brought into this world.

This policy will also encourage many people to have none or one or two children, as they will benefit from tax cuts, where they will not be paying as much as those with children, and this saved money can be used for supporting the child, or for any other desired cost. Additionally, because those with no children will benefit the most, it is possible that enactment of this sort of policy will delay the average age at which couples have their first child. Because those who have their first child later in their life tend to have fewer children overall, this in itself may deter those who perhaps would have had three children, to have only two. This sort of policy, initiated by the government, would also inspire more thought to family planning, as couples would not only consider their own emotional readiness to start a family, but would also consider this additional financial factor, that would impact their finances as they began their family too.

I have spoken extensively about the quality of life of human beings worldwide throughout this paper, and have evaluated financial as well as medical factors that tie into the well-being of human agents. If it is taken as a global truth that human beings should have a high quality of life and we wish to reduce the suffering of others, it follows that a smaller population and family planning will improve overall life quality of all people. This sort of policy has discreet social and cultural benefits as well, as it presupposes that parents are giving thought to family planning before a child or children are brought into the world, and that all children that

are born have parents, or a parent that is able to financially support them, as it is unlikely that parents would choose to have a third child if they were unable to both care for the needs of the child as well as meet the tax. It would also apply pressure on people that might have unplanned children, as the imposition of a financial tax may deter people from being careless when engaging in sexual activities. It becomes more critical that parents of children have the financial means to care for them, because any child born implicates a greater financial strain to the family.

In many ways, this tax follows the dignity of life. It assumes that all human life is valuable, and that all children born are born to parents that care about them and have given prior thought to their arrival. It does not restrict choice or even frown on those who choose to have large families, but rather ensures that children that are brought into the world are well cared for, while also meeting the goal of decreasing the population as it is anticipated that it will encourage fewer births. This will also increase the quality of life in a direct and indirect way. Directly in that the hope is there is a higher likelihood that children born are expected, and indirectly in that a smaller overall population will allocate resources to reach the needs of the rest of the world, so that fewer people will live in poverty or without basic medical needs, and more people will enjoy access to these resources.

This policy recommendation covers the goals of what is best for the environment while upholding the choice of all human beings. It encourages people to have fewer children and offers monetary incentives and benefits, as well as taxes meant to deter people from having many children, but in no way commands people to do or not to do what they wish with their bodies, and does not restrict their choice. Rather it propels action that is beneficial for the environment, current human beings, and future stakeholders, that we have a duty to as well. This policy will

cover other aspects of government care for children born, as it is a government enforced policy. For instance, public school will no longer be free for students that are third or fourth children. Additionally as state colleges offer in-state tuition for students, it will stop offering these prices for colleges after two children. This in itself might be a deterrent for many to have many children as the financial cost of raising a child and educating them accrues over time. This is not to say that people can not or should not have many children, but rather that they will be responsible for the costs that the government would usually pick up when having more than two children.

The purpose for the policy becoming more stringent with financial benefits after a couple has two children is that when a couple has more than two children, they no longer are replacing in number themselves, but are introducing more people into the world that will go on to have children of their own, creating an imbalance in the net population growth. Of course, the goal of this policy is to target the parts of the world that have the highest populations while honoring choice by incentivising people to have fewer, if any, children. The aim of this policy is to reduce populations, and will do so from a financial direction, with the hope that financial benefits and taxes, as well as a greater financial responsibility placed on parents will deter them from having many children. This in turn will curb the consumptive nature of human beings by placing a financial weight for them to consider when having large families that consume great amounts of resources, as well as will care for the environment and human beings by reducing the population and increasing the quality of life for all those who are alive and will be born.

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