

The United Nations Environment Programme

The Issue of the Overexploitation of Natural Resources and the depletion of the Global Commons in the 21st Century

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The international community first became aware of the degree of human impact upon the natural environment in 1972 with the establishment of the United Nations Conference of the Human Environment (UNCHE). Taking place in Stockholm, Sweden, this was the first global governmental conference on the environment. While it popularized the issue of the environment and permanently placed it on the international agenda, it also revealed crosscutting beliefs that still persist in current environmental discussions. Interests within the environment differ depending on a nation's economic perspective. For example, industrialized nations primarily concern themselves with the implications of industrial pollution, while lesser and least developed nations have prioritized their agendas to focus primarily on the issue of natural resource usage. While both agendas take into consideration human impact on the environment, one perspective incorporates economic development, while the other would call for the international community to forgo economic development in order to preserve such natural resources⁴⁵.

The UNCHE, along with creating various policies on how nations should act in terms of their environment, called for the establishment of the United Nations Environment Programme, located in Nairobi, Kenya, making it the first agency of the United Nations to be located within a lesser-developed country⁴⁶. Along with the creation of the UNEP and important legislation, such as the Stockholm Declaration, which established twenty-six principles of behavior and

⁴⁵ Haas, Peter M.. "Environment: Pollution." *Issues in Global Politics* (2008): 311. Print.

⁴⁶ The United Nation's Environment Program (UNEP). "Organizational Profile: The UNEP." The United Nations Environmental Porgram. 7 Sep 2009 <<http://new.unep.org/PDF/UNEPOrganizationProfile.pdf>>.

responsibility to serve as the basis for future legally binding multilateral agreements, the United Nations also held a Conference on Environment and Development (UNCED) was also in 1992 in Rio de Janeiro. Out of this conference the Rio Declaration was adopted, creating twenty-seven principles for guiding environmental policy while promoting sustainability.

The Rio Conference also established the United Nations Commission on Sustainable development (UNCSD), which created a shared agreement between the developed and developing world, working in correlation with one another to improve the status of the environment. This agreement, which is still upheld in international policies pertaining to the environment and the international political economy, states that the environment and development are complementary ideas in terms of sustainability. In addition it calls upon developed nations to aid the developing world to pay for and assist with new technologies to affect conditions elsewhere in the world, not just in the relative proximity of their own national borders⁴⁷. Ironically, unanticipated environmental threats are sometimes the result of well-intentioned efforts at improving national prosperity. This statement clearly supports the sentiments of the UNCSD, noting that in the long run, sustainability efforts should include both environmental preservation and economic development in order to conserve the international environment.

Historically, nations have looked at the environment from relatively close proximity, evaluating the environment in terms of their national resources and the impact they may be having on such resources. However, as nations evaluate the value and importance of these national resources, the question of the Global Commons is becoming more and more apparent.

⁴⁷ Haas, Peter M.. "Environment: Pollution." *Issues in Global Politics* (2008): 311. Print.

The Global Commons, whose definition dates back to early English law, is a term that was codified to exemplify our shared natural resources. The word global sets the perspective and the term commons refers to the aspect of the environment that is shared. In early English society, the commons was referred to as the tract of ground that was shared between villages⁴⁸. Applied to a global perspective, the commons becomes a wide range of natural elements that are shared amongst nations in the international community.

What environmental resources do we define as the Global Commons of today's international society? The list of shared natural resources is endless. However, prominent elements include the atmosphere, hydrosphere, lithosphere, and biosphere. The atmosphere is the blanket of air that surrounds the earth; it absorbs the energy from the sun, recycles water and other chemicals, and moderates our climate in correlation with electrical and magnetic forces⁴⁹. Our hydrosphere contains all of the earth's water found in streams, lakes, the soil, groundwater, and in the air, and is commonly referred to as the "water sphere"⁵⁰. The earth's crust and the top part of the mantle that covers the earth's surface is the Lithosphere, which is broken into different lithosphere plates that contain both continental and oceanic crusts of the earth's surface⁵¹.

Our impact on these Global Commons translates into *The Tragedy of the Commons*: a collective good dilemma that is created when common environmental assets (such as the world's

⁴⁸ Palmer, A.R.. "What do we mean by the Global Commons?." *Basin: Toward a Stewardship of the Global Commons: Engaging "My Neighbor" in the issue of Sustainability* 06/07/2009 Web.7 Sep 2009. <http://74.125.95.132/search?q=cache:Nt6qR_094PYJ:bcn.boulder.co.us/basin/local/sustain1.htm+global+commons&cd=2&hl=en&ct=clnk&gl=us&client=safari>.

⁴⁹ NASA, "Earth's Atmosphere." *Student Features* 10/04/2009 Web.7 Sep 2009. <http://www.nasa.gov/audience/forstudents/9-12/features/912_liftoff_atm.html>.

⁵⁰ Ritter, Michael E. *The Physical Environment: an Introduction to Physical Geography*. 2006. Date visited. http://www.uwsp.edu/geo/faculty/ritter/geog101/textbook/title_page.html

⁵¹ Castro, Peter, and Michael E. Huber. *Marine Biology*. 7. New York City: McGraw-Hill Higher Education, 2008. Print.

fisheries) are depleted through the failure of states to cooperate effectively⁵². This lack of cooperation has roots in national interests pertaining to the environment and the benefits of using (and exploiting) shared natural resources at the global level.

This notion of one state's actions affecting another state's environment can be exemplified in many ways. Chemical emissions, such as chlorofluorocarbons (CFCs) of more industrialized nations, do not just impact the section of the Ozone layer that is directly above them. In fact, those emissions will damage the protective layer that is the Ozone (which plays a vital role in protecting life on earth from harmful ultraviolet rays from the Sun)⁵³ in its entirety, ultimately harming all populations around the world, and not just the population of the nation who elected to produce such chemical byproducts in the first place.

A prominent example cited in the discussion of the tragedy of the global commons is that of over fishing. The waters (oceans) in which companies fish are viewed as a collective good, seeing as one nation does not have sole ownership of it. Due to the work of international bodies, multinational corporations, and nongovernmental organizations, there are some laws and protocols in place, such as the International Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks⁵⁴, that limit the amount of actions taken by these industries that would ultimately deplete the stocks of fish present within the oceans. However, the lack of force to implement such regulations has resulted in the over fishing of these resources. As of 2007,

⁵² Goldstein, Joshua S., and Jon C. Pevehouse . *International Relations*. 2008-2009 Update. New York City: Pearson Longman , 2009. Print.

⁵³ NOAA Research. "The Ozone Layer." *NOAA Office of Oceanic and Atmospheric Research* 14, June, 2007 Web. 7 Sep 2009. <http://74.125.95.132/search?q=cache:l2v7bLbkN-UJ:www.oar.noaa.gov/climate/t_ozonelayer.html+The+Ozone&cd=3&hl=en&ct=clnk&gl=us&client=safari>.

⁵⁴ "Fisheries Conference agrees on conservation measures". UN Chronicle. FindArticles.com. 07 Sep, 2009. http://findarticles.com/p/articles/mi_m1309/is_n2_v32/ai_17369732/

fifteen-percent less fish are caught in each catch, and as species of seafood are depleted, fisheries simply move on to another species in order to provide some sort of supplement⁵⁵.

The environmental conscience and awareness of the depletion of such resources and species is not enough to overcome the economic incentive behind such overexploitation. Even though nations are paying up to \$20 billion annually in order to subsidize the growing number of bankrupt fishing industries (due to the lack of attention given to fixing the problem of over fishing)⁵⁶, the economic gain still stands as a greater incentive when a multinational corporation has the choice to either abide by international protocols protecting the global commons or to continue to overexploit the natural resource in question. The irony of economic betterment is a striking feature in this case study as the economic gain of one multinational corporation comes at the price of the national economic health of a country and at the price of the depletion of the global environment.

The question of the tragedy of the global commons, or the issue of the overexploitation of natural resources and the depletion of the global commons in the 21st century, is not just a question of our international environmental conscience and awareness. It is a growing question of national and international priorities. How long shall our national economies and policies take precedence over the international environment that sustains life for our current generation and future generations to come? How long will the green of our national livelihood deplete the green of our international environment, and in summation, how can we as the United Nations

⁵⁵ Goldstein, Joshua S., and Jon C. Pevehouse . *International Relations*. 2008-2009 Update. New York City: Pearson Longman , 2009. Print.

⁵⁶ Goldstein, Joshua S., and Jon C. Pevehouse . *International Relations*. 2008-2009 Update. New York City: Pearson Longman , 2009. Print.

Environmental Programme rewrite the ending to the tale that is the tragedy of the global commons?

Questions to consider:

1. What are the prominent aspects of the environment that are frequently overexploited and for what reasons?
 - a. Is the emphasis on this overexploitation due to necessity (i.e.: water) or is it due to the economic incentive that backs it?
2. What pieces of international legislation are currently in place to protect different aspects of the environment?
 - a. What is their emphasis and what do they protect?
 - b. How would you rate its efficiency?
 - i. If inefficient, where is the loophole or lack of incentive within the legislation?
3. Where does your nation stand on the issue?
 - a. Are there recent efforts within the past 10-15 years that should suggest a change in national environmental policy?
 - b. What programs have worked within your nation to deter the depletion of natural resources?
 - c. How could national policies be translated and implemented to the international level?
4. What nations are currently leading the international community in the fight for the preservation of the environment?
 - a. What programs have they invested in/created at the domestic and international level that show significant improvement within the preservation of the environment?
5. What technologies are in development or are currently being implement in order to deter overexploitation?
 - a. What is the basic function, expense, and how easily could it be implemented on an international scale?
 - b. How could the UNEP implement such technologies with strong legislation behind it in order to ensure its ultimate success?
6. How could the economic North continue to aid the economic South in developing greener national practices while still preserving their rid to industry and economic self-determination?
7. What incentives are currently in place or could be developed that would take precedence to economic development?

Addressing the Global Carbon Market
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Since the United Nations Intergovernmental Panel on Climate Change (IPCC) established that “most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.” there has been a sense of urgency among the global community to reduce greenhouse gases in the Earth’s atmosphere. In 1992, the United Framework Convention on Climate Change (UNFCCC) encouraged industrialized countries to stabilize greenhouse gas emissions and in 1997 The Kyoto Protocol committed the countries that ratified it to do so. The primary goal of the Kyoto Protocol is to stabilize the amount of greenhouse gasses (GHG) that are in the Earth’s atmosphere to a level that will not interfere with the climate system. In December 2001 the Marrakech Accord, which set the rules and standards for all participating nations, was adopted and their implementation began.⁵⁷

The Kyoto Protocol set up two groups in which a nation can be categorized; Annex I and Non-Annex. States that are a part of the Annex I group are industrialized and are recognized as being chiefly responsible for the amount of greenhouse gases in the atmosphere today. Annex I members have been industrially active for the past 150 years. This means countries like the Peoples Republic of China and India are not a part of Annex I, because they have only very recently become industrialized and have been releasing large, measurable amounts of greenhouse gases. Annex I countries are required to reduce six of the main greenhouse gases: Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Hydrofluorocarbons (HFCs),

⁵⁷ "Carbon Finance." The World Bank. 5 July 2009 <<http://web.worldbank.org/>>. Kyoto Protocol Reference Manual. <http://unfccc.int/kyoto_protocol/items/2830.php>.

Perfluorocarbons (PFCs), and Sulphur hexafluoride (SF6). The levels of these six gases have to be collectively reduced by 5.2%, compared to the levels in 1990, by the year 2012. This table shows the varying percentage of greenhouse gases that each Annex I member is limited to or must reduce by. This percentage is also known as a party's assigned amount.

Annex I Members	Limitations/Reductions
European Union, Bulgaria, Czech Republic, Estonia, Latvia, Liechtenstein, Lithuania, Monaco, Romania, Slovakia, Slovenia, Switzerland	8%
United States	7%
Canada, Hungary, Japan, Poland	6%
Croatia	5%
New Zealand, Russia, Ukraine	0%
Norway	+1%
Australia	+8%
Iceland	+10%

Source: Kyoto Protocol Reference Manual

Non-Annex members are developing countries that currently and in the recent past have not greatly contributed to the global amount of greenhouse gases and/or have an economy that is in transition. Being that the economies in Non-Annex countries are in their infancy and not yet stable enough, they do not have assigned amounts. This policy was established under the principle of “common but differentiated responsibilities.” This has caused some nations to disagree with the implementation of the Kyoto Protocol, in particular the United States. The United States' stance is that there should be equal responsibilities when it comes to the domestic

reduction of greenhouse gases. As of today the US has signed the Kyoto Protocol, but not yet ratified it; therefore they are not bound to their assigned amount of 8%.

One of the three mechanisms that the Kyoto Protocol established as a way for Annex I members to reach their assigned amounts is through the use of emissions trading, also known as “The Carbon Market”.⁵⁸ This market is set up like any other, with the exception that carbon credits are the main commodity. A carbon credit is a permit that allows an entity to emit a specified amount of greenhouse gases. Annex I nations with efficient, low greenhouse gas-emitting industries, and high environmental standards are allowed to purchase carbon credits on the world market instead of reducing their greenhouse gas emissions domestically. If a nation comes in under their assigned amount they can sell their unused carbon credits to countries that have exceeded theirs. Carbon credits can also be bought and sold from international businesses that specialize in the production of carbon credits and Non-Annex countries that operate programs that reduce greenhouse gases.

The other two mechanisms, The Clean Development Mechanism (CDM) and Joint Implementation (JI) are what allow Annex I countries to interact with Non-Annex countries and independent businesses. Countries have also set sub-markets within the Global Carbon Market. One example is the European Union Emission Trading System (EU ETS). Countries can trade carbon credits within this market and as a whole with other sub-markets in the Global Carbon Market. The Clean Development Mechanism and Joint Implementation have paved the way for a new branch of environmental finance, Carbon Finance.⁵⁹

⁵⁸ "Mechanisms under the Kyoto Protocol." United Nations Framework Convention on Climate Change. 5 July 2009 <http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php>.

⁵⁹ "About the World Bank Carbon Finance Unit." The World Bank. 5 July 2009 <<http://web.worldbank.org/>>.

All of the transactions between the countries and businesses create the global carbon market. In essence, emissions trading forces countries to pay a monetary price for the pollution they add to the atmosphere, while rewarding countries that pollute less by giving them the ability to profit from their reduction. Countries are given the incentive not only to reduce the amount of greenhouse gases they emit, but also to emit less than their assigned amount. The World Bank has set up the Carbon Finance Unit, which uses funds from governments and independent business to support greenhouse gas reducing programs in Non-Annex countries as part of the Clean Development Mechanism. The Carbon Finance Unit does not loan or grant funds to these programs, but instead purchases carbon credits from the programs. The World Bank assures that these transactions not only uphold the goals of the Kyoto Protocol, but also their own mission of reducing poverty and improving the living standard in the developing world.

Even though many nations have taken part in the global carbon market there is still plenty of opposition to its use. One of the main arguments by critics is that emissions trading, or a so-called cap and trade system, do little to solve overall problem of pollution. Groups that do not pollute sell their conservation to the highest bidder. So in fact, the amount of pollution is not being reduced, but its emission is being redistributed. They claim that significant reductions need to come from a smaller amount of allowances/permits available in the market. Another concern is that the agencies that regulate the amount or emissions credits in the market may issue too many of them. With more emissions credits on the market, parties are able to add more carbon dioxide in to the atmosphere than reduce it.

Climate Action Network Europe (CAN-E) is strongly in favor of reform to the current emission trading system. In their report to policymakers, subtitled Phase II of the European Union's Emissions Trading System, they advocate auctioning off carbon credits instead of

grandfathering, which is the current practice.⁶⁰ Grandfathering is when a government buys carbon credits and distributes them to the polluters with no cost to them, in an attempt to prevent excessive costs from harming businesses. Groups like Carbon Trade Watch and The Corner House see the emissions trading as the wrong way to reduce carbon. Instead, they claim that the carbon market will find a way to stay at equilibrium in the short term, even if it is not in the benefit of the long-term goal of reducing the amount of carbon in the atmosphere. A World Bank press release entitled “Developing Countries Show Increasing Benefits from a Decade of World Bank Carbon Finance” mentions that the World Bank’s assets have grown from US\$180 million with one greenhouse reducing program to US\$ 2.6 Billion today with almost 12 programs operating successfully.⁶¹ East Asia has the largest share of all active greenhouse gas reduction programs, with more than US\$1.5 Billion in carbon assets. Second are Latin America and the Caribbean and third is Central Asia and Europe. According to the yearly report, “State and Trends of the Carbon Market 2009” the Global Carbon Market has doubled since 2008 to be currently valued at US\$126 Billion.⁶² The report is based on data from trading under the European Union Emissions Trading Scheme and from transactions that occurred under the Clean Development Mechanism and Joint Implementation.

A recent UNEP publication titled “Climate and Trade Policies in a Post-2012 World” elaborates on its possible plans for future modifications of the current global carbon market. It states having a set price for carbon credits is “critical for development and dissemination of clean energy technologies, as it will create the economic incentives needed for private actors to take

⁶⁰ CLIMATE ACTION NETWORK EUROPE-
http://www.climnet.org/EUenergy/ET/NAPsReport_Summary0306.pdf

⁶¹ The World Bank. Carbon Finance. "Developing Countries Show Increasing Benefits from a Decade of World Bank Carbon Finance." Press release. Washington, 2009

⁶² The World Bank. Carbon Finance. "State and Trends of the Global Carbon Market 2009." Barcelona, 2009.

action.”⁶³ In order to set a universal price it is required that fossil fuel subsidies be completely eliminated and to tax emitters of carbon among other things. The publication goes into further detail on the implications of a carbon tax mechanism, “in which countries would tax carbon emissions at an internationally harmonized “carbon price”.” If a “carbon price” were to be achieved it would get rid of the need for countries to restrict the flow of technology through the use of tariffs, subsidies, and differential tax treatment. The Kyoto Protocol mentions that one way for nations to reach their target emissions is to reduce or completely do away with subsidies and market imperfections. A large portion of the publication is also spent discussing the role that developing countries play in the carbon market. Industrialized countries are calling for the use of unilateral trade measures. This would entitle larger developing nations like India and China to take a greater role in reducing their levels of green house gases.

Since 1997 there have been many post- Kyoto Protocol negotiations. Most are non-binding talks that are intended to further the goal of reducing greenhouse gasses. A particular example includes the February 2007 "Washington Declaration", in which G8+5 leaders agreed to a global cap and trade system which would be utilized by both industrialized and developing nations. Their goal was to have this plan implemented by 2009. During the 33rd G8 Summit in June of 2007 the members aimed to reduce CO₂ emission in half by 2050 and financially support climate control projects in developing countries.

The next scheduled post-Kyoto Protocol negotiation is for the 2009 United Nations Climate Change Conference in Copenhagen, Denmark. The issues that will dominate the discussion at the conference will be carbon capture and storage, biofuels, technology transfer,

⁶³ UNEP Report- Climate and Trade Policies in a Post-2012 World
<http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3d&tabid=389&language=en-US>

sustainable agriculture, and emissions targets. Another major point that will be made at the conference is the importance of furthering the development and distribution of new technologies in order to reduce carbon emissions. Still there are critics that claim that United Nations Climate Change Conference and G8 Summits are more for show and do not contain enough substance or a concrete plan to actually reduce the amount of greenhouse gasses in the atmosphere. Many called the conclusion formed at the 33rd G8 Summit in June of 2007 an empty promise because it was never fully implemented. The reason was that members could not designate a specific base year to which all nations had to return their gas emission levels.

Questions to consider:

- 1) Is the Global Carbon Market effective in stabilizing the amount of greenhouse gases in the atmosphere? If not, how can it be utilized to its fullest potential?
- 2) Which of the three mechanisms stated in the Kyoto Protocol does your state implement?
- 3) Is the distribution of responsibility between Annex I and Non-Annex members fair in the Global Carbon Market?
- 4) Should Non-Annex members be doing more to stabilize greenhouse gases?
- 5) Whom does the Carbon Market financially benefit the most?
- 6) Are the expectations of the Kyoto Protocol to reduce GHG levels to those of 1990 reasonable?
- 7) Is the world community gaining financially from the Global Carbon Market?