



HoMMUNC

United Nations Environmental Programme

Chair: Charlotte Frankel

Moderator: Jonathan Bleiberg

Dear Delegates,

My name is Charlotte Frankel, and I am excited to be discussing what I believe to be the most pressing issues in the world today pertaining to the Environment. I am a senior at Horace Mann School where I am The Student Body President, Vice President of the Model Congress team, along with an editor of The Record, the school newspaper, and one of the captains of the Girls' Varsity Soccer Team. I hope you all are as excited as I am to be dissecting and hopefully coming up with solutions for these issues.

Jonathan Bleiberg and I are looking forward to your (what we're sure to be) heated debates on Greenhouse Gas Emissions and Sustainable Development. Come prepared and ready to think quickly. Model UN provides you the opportunity to delve into the issues that you may not have the chance to discuss with teachers or peers during class, so we urge you to capitalize on that. Form blocks. Work collaboratively and brainstorm. Solve the world's energy problem!

In the following background guide, you will find a brief outline of what you will be researching and discussing. This should not be your only research, just a basis for it. You should also be aware of your country's position and be willing to stick to it throughout the course of debate. We look forward to a great day of committee. Get ready, get set, go (green)!

Best Wishes,

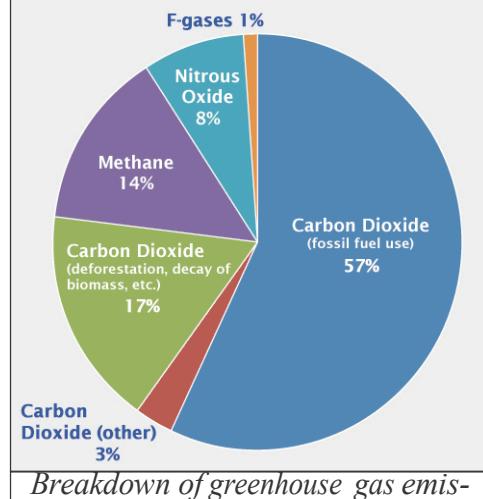
Charlotte Frankel
Chair of UNEP

Topic I: Greenhouse Gas Emissions

History of the Issue

The term "greenhouse gas" refers to any substance that traps the sun's infrared radiation (heat) in the atmosphere when it reflects off of the earth's surface. Though greenhouse gases come in many forms, both naturally occurring and manmade, this committee will focus on the latter sort. Manmade greenhouse gases are often emitted as a byproduct of industrial processes, agriculture, and the combustion of "fossil fuels." Examples of such "manmade greenhouse gases" include chlorofluorocarbons (CFCs), once commonly found in aerosols, nitrous oxide, a byproduct of fertilizer and certain industrial processes, and car-

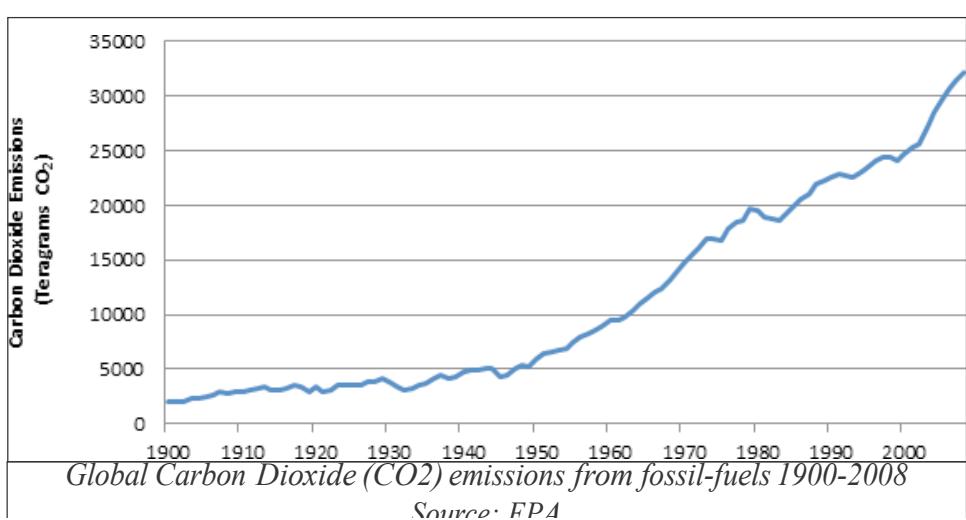
bon dioxide. By and large the most prevalent greenhouse gas in the atmosphere is carbon dioxide. According to the United States Environmental Protection Agency, carbon dioxide accounts for approximately 77% of greenhouse gas emissions. Of this 77%, about 74% can be attributed to the combustion of fossil fuels, while the remaining 23% is divided among deforestation, natural decay, and other causes. Methane, a byproduct of oil, coal, and natural gas pro-



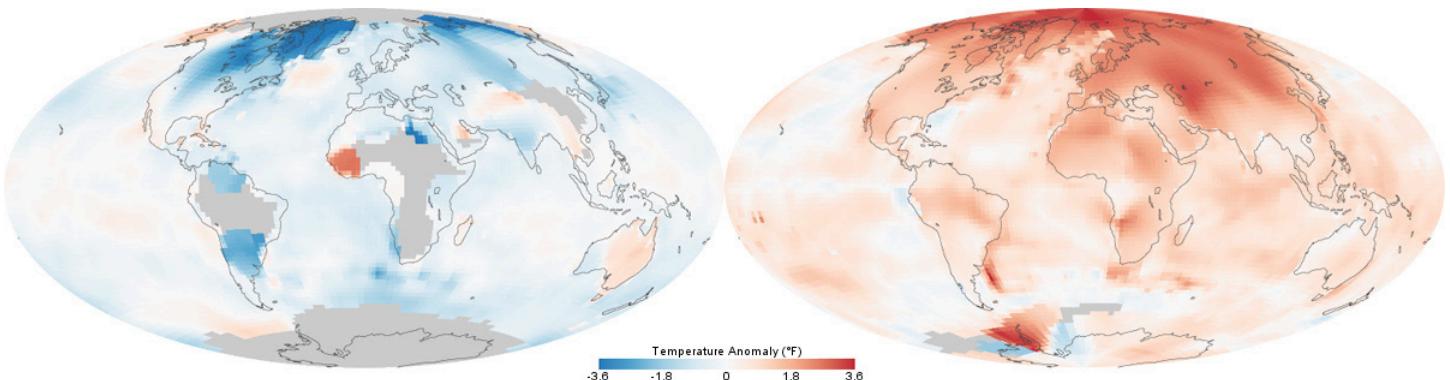
Breakdown of greenhouse gas emissions by gas Source: EPA

duction, and nitrous oxide are the next most prevalent greenhouse gases, accounting for 14% and 8% of global emissions, respectively.

While a certain level of greenhouse gases is naturally present in the atmosphere, the rise of industrialization



Source: EPA



World temperatures as compared to the 1951-1980 average in the 1880s (left) and the 1980s (right)

Source: EPA

has seen a dramatic and unprecedented rise in their emissions. Between 1900 and 2008, global carbon dioxide emissions from fossil fuel combustion have grown by 1600%. The main problem associated with this increased emission of greenhouse gases is global warming, the steady increase of average temperatures over the past several decades. Over the past 100 years, average global temperatures have risen by approximately 1.4 degrees F. Climatologists predict that in the next 100 years, temperatures could

rise further by anywhere from 2-11.5 degrees F. While such changes may appear small, they could cause catastrophic ecological consequences, from rising sea levels to an increased prevalence of destructive severe weather events. For this reason, the UNEP and other United Nations environ-

mental initiatives have made addressing the rise in greenhouse gas emissions a major priority.

In 1992, the UN Framework Convention on Climate Change (UNFCCC) was developed as part of the "Rio Earth Summit." Entering into force in March of 1994, the UNFCCC has now been



Delegates at the 2007 United Nations Framework Convention on Climate Change (UNFCCC)

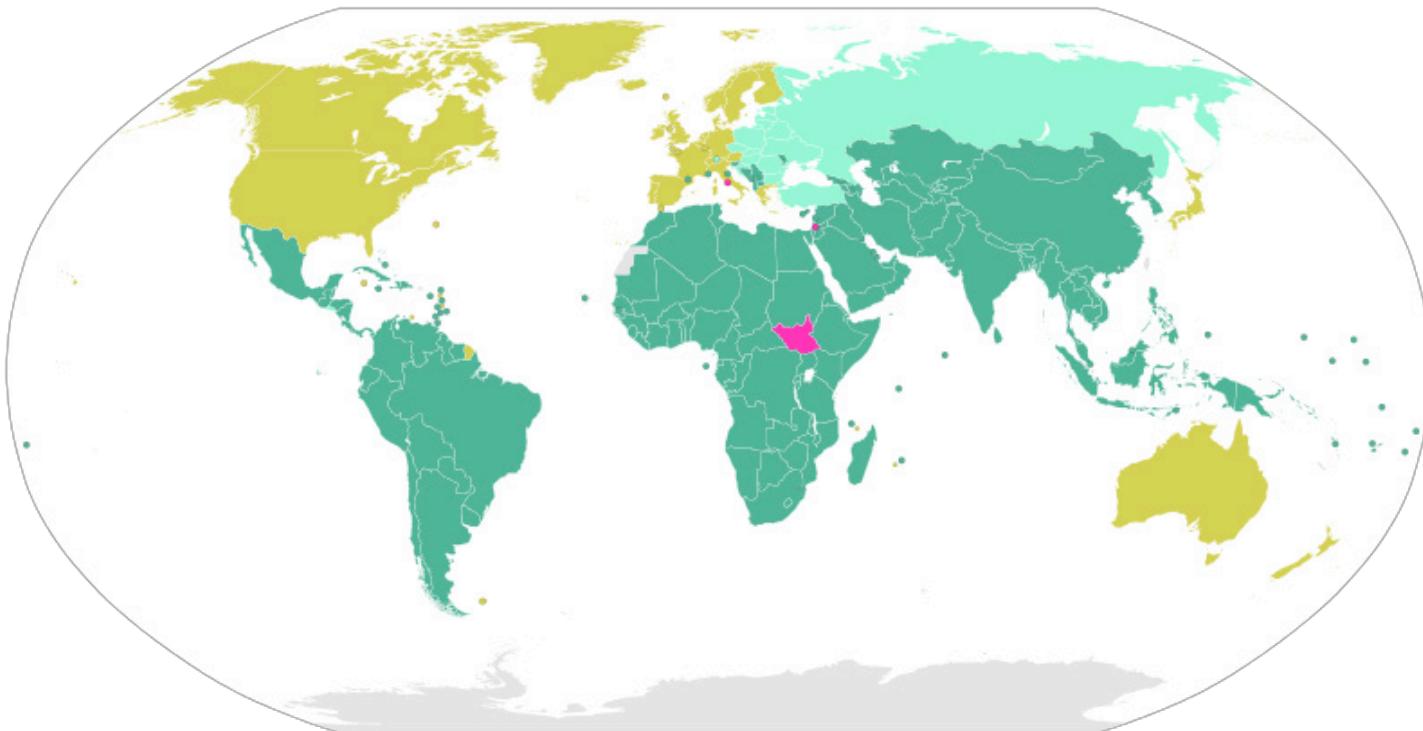
Source: <http://www.robertsetiadi.net/unfccc-2007/>

ratified by 195 countries. The stated goal of the UNFCCC was to "stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system...within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development

to proceed in a sustainable manner." The Convention centered responsibility for the reduction of greenhouse gas emissions on developed countries, charging them to both reduce their own emissions and to contribute funding to climate change initiatives in developing countries. Both developed and developing countries party to the Convention are required to submit reports

on their progress in achieving its objective. Unfortunately, the UNFCCC initially lacked a proper enforcement mechanism.

This mechanism came in 1997, with the "Kyoto Protocol." The Kyoto Protocol bound certain developed countries to emissions reduction targets, which, in total, amount to a 5% decrease in emissions from 1990 levels. Through a market-based



Map of countries party to the UNFCCC. Countries in green are party to all or some of the provisions of the treaty. Countries in pink are observer nations.

Source: <http://upload.wikimedia.org/wikipedia/commons/d/dc/UNFCCmap.svg>



Delegates at the 2012 Doha Climate Change Conference, where the Doha Amendment to the Kyoto Protocol was adopted

Source: UNFCCC

photo: jan golinski/unfccc

schemes allowing countries to trade carbon dioxide emissions and a comprehensive "compliance mechanism," the Kyoto Protocol was both more enforceable and more effective than the UNFCCC. The Kyoto Protocol also paved the way for greater international cooperation through the three "Kyoto mechanisms": International Emissions Trading, Clean Development Mechanisms (CDMs), and Joint Implementation (JI). Inter-

national Emissions Trading treats greenhouse gas emissions as a commodity, allowing countries that have emissions below their reduction target to "sell" these emissions to other countries. The Clean Development Mechanism further promoted international cooperation to meet emissions targets by allowing countries to carry out "emission reduction projects" in developing countries in exchange for "certified emission reduc-

tion" (CER) credits. The final mechanism, Joint Implementation, allows countries to earn "emission reduction units" (ERUs) from emission reduction projects. The Kyoto Protocol also established a "Adaptation Fund," designed to "finance adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol." In 2007, during the Thirteenth Conference of the Parties (COP) of the UNFC-



Delegates at the COP 13 in Bali, where the Bali Road Map was adopted

Source: UNFCCC

CC, the Bali Road Map was adopted, including the Bali Action Plan. The Plan outlined a process to successfully implement the UNFCCC in the future, with special emphasis on the period between 2007-2012.

In 2010, the Cancun Agreements were adopted. The Agreements had seven

“main objective” areas: Mitigation, Transparency of Actions, Technology, Finance, Adaptation, Forests, and Capacity Building. The Agreements also created a timeline for review processes on the progress of the goal of maintaining an average temperature rise of below 2 degrees C. However, the reduction

pledges included Agreements accounted for only 60% of the necessary emissions reductions required to meet this goal. The following year, the international community began to address the remaining 40% with the Durban Platform for Enhanced Action. The Durban Platform launched a “new platform of negotiations” under the Ad-Hoc Working Group on the Durban Platform for Enhanced Action (ADP). It also called for a new global review of current climate change and emissions reduction targets.



Delegates celebrate the passing of the Cancun Agreements

Source: UNFCCC

In 2012, the Doha Amendment to the Kyoto Protocol was adopted. The Doha Amendment set new emissions reduction targets for the parties of the Kyoto Protocol, to be completed by 2020.

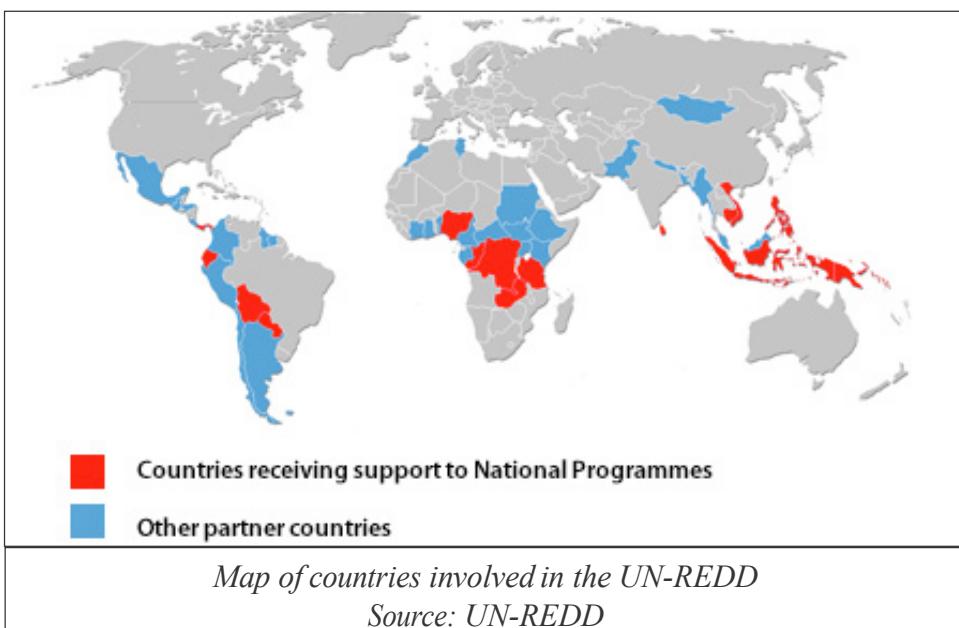
In addition to these broader greenhouse gas reduction agreements, the UNEP has also targeted specific sources of greenhouse gases. In September of 2008, the UNEP launched the Reducing Emissions from Deforestation and forest Degradation



Delegates at the COP18 in Doha, Qatar
Source: UNFCCC

(REDD) initiative, which aims to reduce emissions related to deforestation and forest degradation. REDD works primarily in developing countries, providing "financial incentives" for them to reduce their emissions. Since its founding, the program has worked across three continents, in coun-

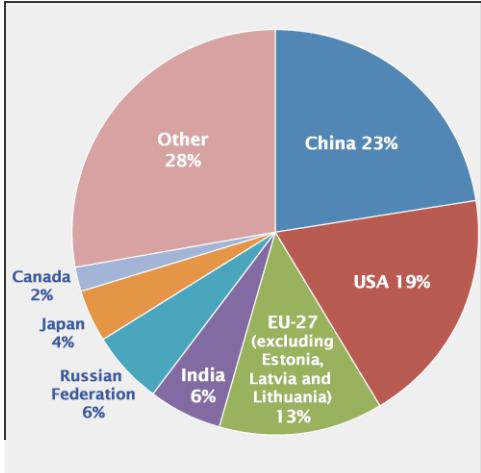
tries such as Paraguay, Tanzania, and Indonesia. These international agreements form the basis of the UN response to climate change. While they have made a significant impact on the global greenhouse gas emissions situation, they are far from perfect. It is my hope that, over the course of committee, they can be improved and new initiatives can be developed that address the issue of increasing greenhouse gas emissions even more effectively.



Map of countries involved in the UN-REDD
Source: UN-REDD

Bloc Positions

Developed Countries



*Global CO₂ Emissions by Country
Source: EPA*

Historically, developed countries have been the greatest source of greenhouse gas emissions, with the US and EU combined claiming 31% of global emissions in 2008. In recognition of this fact, much of the financial and other burden of the Kyoto Protocol falls on them. While most developed countries are party to the convention and so agree to its obligations, some governments may be worried about the economic requirements of any international agreement. Nonetheless, de-

veloped countries are largely in favor of greenhouse gas emission reduction mechanisms and are, on the whole, willing to devote the extra resources that they may require.

Developing Countries

While developing countries are also generally in favor of reducing greenhouse gas emissions, some may be concerned that adopting stringent requirements will hinder their economic development. Developing countries also may not have the resources to combat greenhouse gas emissions without outside help. As such, developing countries may wish to partner with richer, developed countries to implement greenhouse gas reduction initiatives.

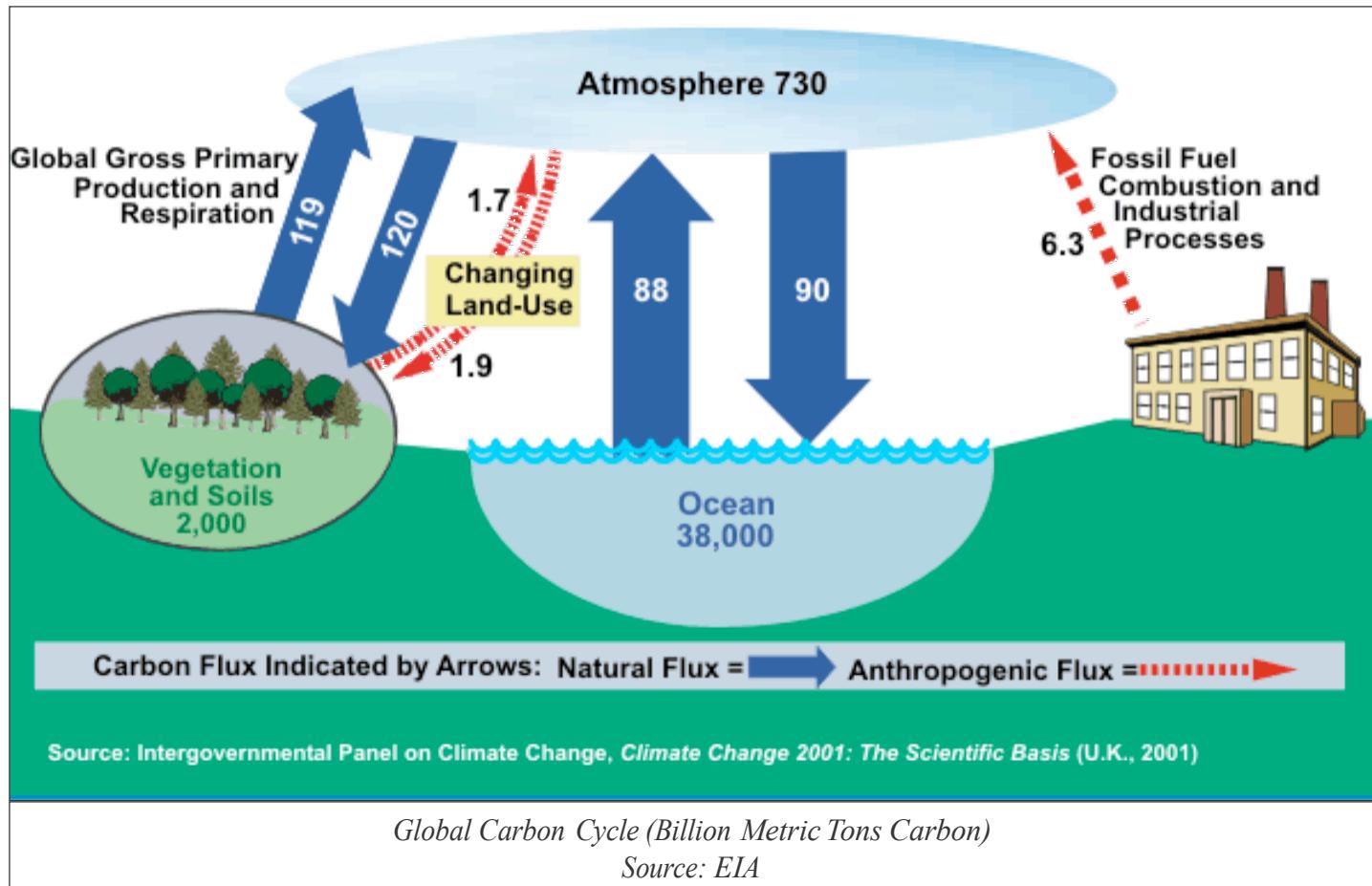
Questions to Consider

A successful resolution will address the following questions:

- Are the provisions of the UNFCCC and Kyoto Protocol sufficient as is? Do they need strengthening or weakening?
- What further measures can be taken to reduce greenhouse gas emissions?
- How can the financial restrictions of developing countries be accommodated?
- How much responsibility for reducing emissions should fall on developed countries?
- How can the UN specifically facilitate the reduction of greenhouse gas emissions?

Suggested Links

- http://unfccc.int/essential_background/items/6031.php
- <http://www.epa.gov/climatechange/ghgemissions/>
- <http://www.un-redd.org/AboutUN-REDDProgramme/tabid/102613/Default.aspx>
- <http://www.unep.org/climatechange/>
- <http://www.economist.com/blogs/babbage/2012/02/climate-change>
- http://topics.nytimes.com/top/reference/timestopics/subjects/g/greenhouse_gas_emissions/
- <http://www.eia.gov/oiaf/1605/ggccebro/chapter1.html>
- <http://www.economist.com/news/science-and-technology/21574461-climate-may-be-heating-up-less-response-greenhouse-gas-emissions>
- <http://www.hks.harvard.edu/fs/jfrankel/BrookingsPolicyBrief1999.pdf>
- <http://www.theguardian.com/environment/2011/mar/11/kyoto-protocol>

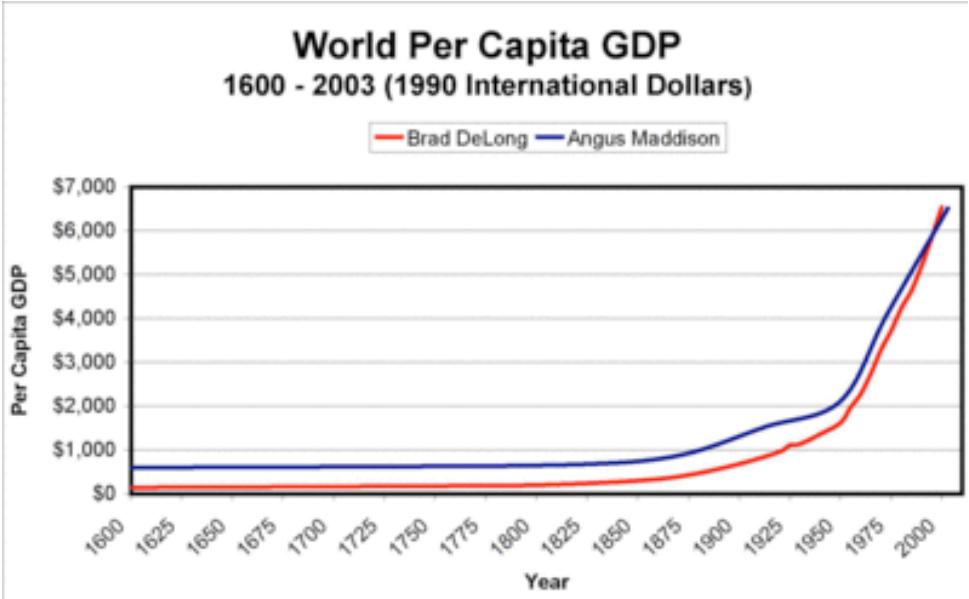


Topic II: Sustainable Development

History of the Issue

The past hundred years have seen an incredible level of development on an altogether unprecedented scale. Propelled by private enterprise, technological advances, and development institutions, global GDP has grown by an estimated 1000% since 1900 (IMF). Too often however, this development comes at the expense of the environment. Processes commonly associated with industrialization and modernization, including the combustion of fossil fuels, urbanization, and deforestation, to name a few, all take their toll on the Earth's fragile ecosystems. If allowed to go unchecked, development may have catastrophic ecological conse-

quences. For this reason, we have seen in recent years a push for "sustainable development," development that accounts for and attempts to mitigate its own environmental consequences. As with greenhouse gas emissions, the UNEP makes the introduction of sustainable development practices a high priority on its agenda. The UN's commitment to sustainable development can be traced back to 1982, with the adoption of the World Charter for Nature. The Charter recognized the connection between conservation and development. In 1983, the World Commission on Environment and Development (WCED) was established and charged with the creation of "a global agenda for change." The



World GDP Per Capita since 1600

Source: http://krusekronicle.typepad.com/kruse_kronicle/2008/03/charting-histor.html#.UirUDmTwJRY

WCED built upon the framework established by the WCS, further stressing the interconnections between the economic, political, and cultural concerns of development and the environment. As its groundbreaking 1987 report, “Our Common Future,” declared, “the environment does not exist as a sphere separate from human actions, ambitions, and needs, and therefore it should not be considered in isolation from human concerns. The environment is

where we all live; and development is what we all do in attempting to improve our lot within that abode. The two are inseparable.”

In 1992, the United Nations Conference on Environment and Development (UNCED) was held. At the conference, an agenda for future sustainable development, known as

Agenda 21: A Programme of Action for Sustainable Development, was developed and adopted. The Agenda placed the responsibility for the introduction of sustain-

OUR COMMON FUTURE

THE WORLD COMMISSION
ON ENVIRONMENT
AND DEVELOPMENT

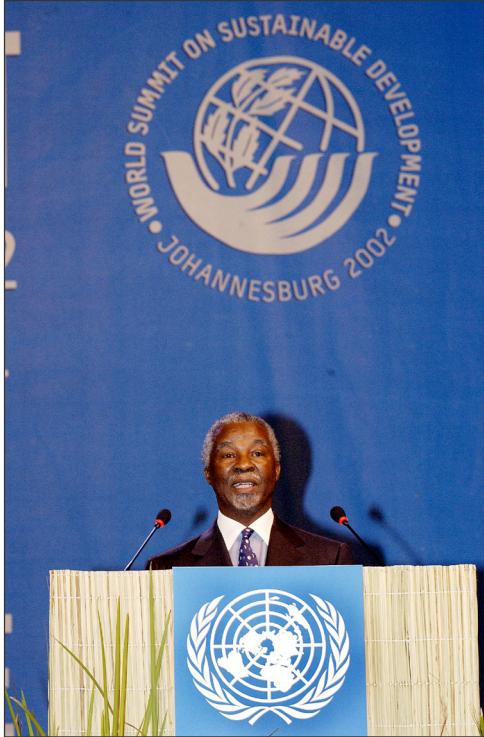
*The 1987 Our Common Future report
Source: Wikipedia*

able development practices on individual countries, all the while recognizing their right to pursue social and economic development. Many landmark environmental protection initiatives, including the UNFCCC, the Statement of Forest Principles, and the Convention on Biological Diversity, were adopted as part of this agenda. In order to carry out the Agenda, the UNCED created the Commission on Sustain-



Delegates at the 1992 UN Conference on Environment and Development, where the Agenda 21 was developed

Source: UNEP



President Thabo Mbeki of South Africa speaks at the WSSD
Source: UN

able Development (CSD) in 1993. Further implementation initiatives came in 1997, when the General Assembly made the development of such programs the focus of its 19th special session.

In 2002, the tenth anniversary of the UNCED, the UN held a follow up conference known as the World Summit on Sustainable Development (WSSD). At the WSSD, the international community

reiterated its commitment to sustainable development, adopting the Johannesburg Plan of Implementation (JPOI) and directing the CSD to continue its implementation efforts.

A further 10 years later, in 2012, the “Rio + 20” conference was held with the purpose of reaffirming the political commitment to sustainable development, reassessing the work of the previous conferences, and addressing new problems that have arisen since the last conference. The Rio conference was organized under two themes, a green economy in the context of sustainable development and poverty eradication and the institutional framework for sustainable development. These two themes were addressed through seven “priority areas,” decent jobs, energy, sustainable cities, food security and sustainable



Delegates watch as Summit Secretary-General Nitin Desai gives a speech at the WSSD
Source: UN

agriculture, water, oceans, and disaster readiness. At its conclusion, the Rio + 20 conference issued a declaration entitled “The Future We Want” which detailed sustainable development implementation mechanisms and guidelines.

Following the Rio + 20

Conference, the UNEP has launched initiatives designed to address the two conference themes. One such initiative, the Green Economy Initiative (GEI), which promotes research on sustainable development and provides “advisory services” to nations wishing to make their econ-

omy more “green.” The GEI currently provides advisory services to over 25 countries worldwide, consisting of “policy advice, technical assistance and capacity building.” The UNEP also devotes significant resources to the promotion of “Environmental Governance,” in



Opening of the Rio + 20 Conference, with Secretary General of the Conference Sha Zukang, UN Secretary General Ban Ki-Moon, Brazilian President Dilma Rousseff, and Under-Secretary General for General Assembly Affairs and Conference Management Muhammad Shaaban

Source: UN



RIO+20

United Nations Conference on Sustainable Development

Logo of the 2012 "Rio + 20" United Nations Conference on Sustainable Development (UNCSD)
Source: Wikipedia

accordance with the goal of establishing an institutional framework for sustainable development. According to UNEP, the "Environmental Governance" program "promotes informed environmental decision-making to enhance global and regional environmental cooperation and governance."

The Rio Conference also established a set of "Sustainable Development Goals" (SDGs) like the current Millennium Development goals, set to expire in 2015. Outlined in

"The Future We Want," the SDGs would be based on the original Agenda 21 and JPOI and would "serve as a driver for implementation and mainstreaming of sustainable development in the UN system as a whole." While the SDGs have yet to be de-

termined, an Open Working Group has been created to advise the General Assembly on the selection of SDGs.

Bloc Positions

Developed Countries

With their greater resources, developed countries are generally more likely to support stringent sustainable development measures than their undeveloped cousins. That said, no country, regardless of how many resources it has at its disposal, wishes to hinder its own development



Delegates at the Rio + 20 Conference
Source: The Guardian

through onerous environmental restrictions. With this in mind, developed countries' proposals should aim to strike a "happy medium" between economic success and environmental protection.

Developing Countries

Unlike richer, more developed nations, developing countries may simply lack the necessary resources to pursue sustainable development practices. Of course, all countries have a vested interest in the promotion of sustainable development, so developed countries may wish to obtain funds from developed countries or development banks to pursue their programs. Developing countries' proposals will likely take measures to avoid economic consequences in



A banner advertising the "Rio + 20" Conference and the "The Future We Want" Declaration

Source: <http://www.pachamama.org/blog/five-ways-to-participate-in-rio20>

the course of sustainable development and will contain details on funding for the initiative.

-How should we strike a balance between economic success and environmental concerns?

-What initiatives can be implemented to ensure that development remains sustainable?

-What is the UN's role in developing and implementing sustainable development practices?

-Are the current international agreements on sustainable development sufficient?

Questions to Consider

A successful resolution will address the following questions:

-What goals should be considered as candidates for selection as SDGs? How stringent should these goals be? In what ways can their accomplishment be facilitated?

Suggested Links

- <http://www.unep.org/pdf/brochures/EnvironmentalGovernance.pdf>
- <http://www.uncsd2012.org/history.html>
- <http://www.unep.org/greeneconomy/GreenEconomyReport/tabcid/29846/language/en-US/Default.aspx>
- <http://www.unep.org/newyork/IntergovernmentalPolicyCoordination/GeneralAssembly/EnvironmentalGovernance/SustainableDevelopmentConferences/tabcid/52274/Default.aspx>
- <http://www.un.org/documents/ga/res/37/a37r007.htm>
- <http://www.economist.com/debate/overview/148>
- http://topics.nytimes.com/top/reference/timestopics/subjects/s/sustainable_development/index.html?8qa
- <http://www.cnn.com/2012/06/20/world/brazil-rio-summit/index.html?iref=allsearch>
- <http://www.worldbank.org/depweb/english/sd.html>
- <http://sustainabledevelopment.un.org/>



UNEP and the EU sign an agreement on sustainable development
Source: UNEP