
Forum: Environmental Commission

Issue: Measures against a further increase of CO₂ emissions with a special focus on LEDCs and NICs

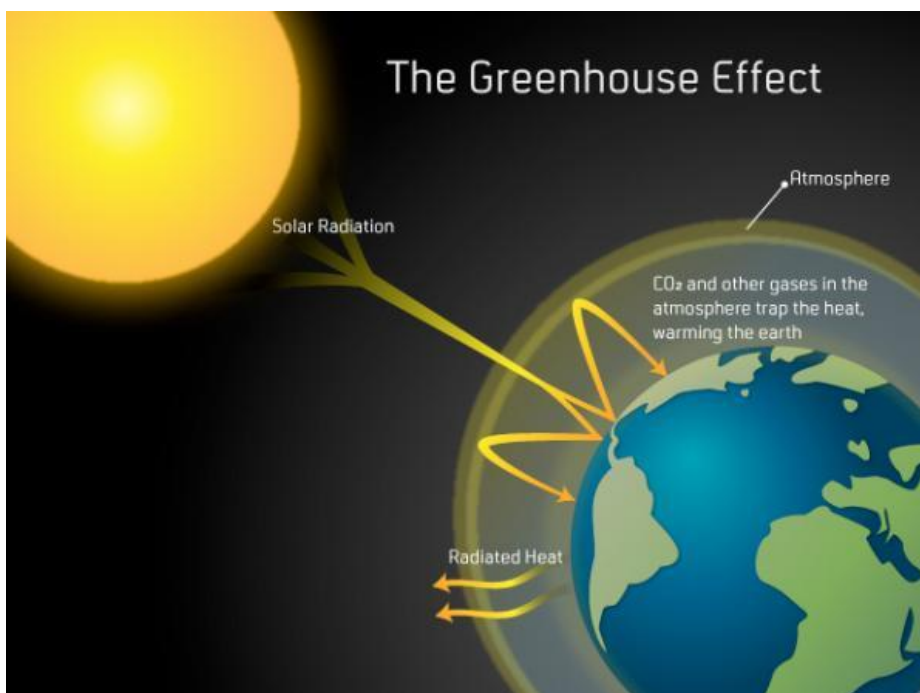
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Description of the Problem, Background and General Information

Description of the General Problem

Across the world, ground temperatures have been increasing for a number of years, the sea level has risen more rapidly in later years and erratic weather systems have occurred. These trends were streamlined into the concept of global warming. CO₂ is currently the biggest contributor to global warming, which originates from primarily the use of fossil fuels such as coal, natural gas and oil (petroleum). Global warming is one of the biggest threats to civilisation currently. The effects of global warming will affect every country on the planet, although some countries maintain their view that global warming does not exist. Global warming is caused by the Greenhouse Effect, which is a natural process necessary for life on Earth, but in later years the Greenhouse Effect has become enhanced by the increased presence of CO₂ and other gases in the atmosphere.

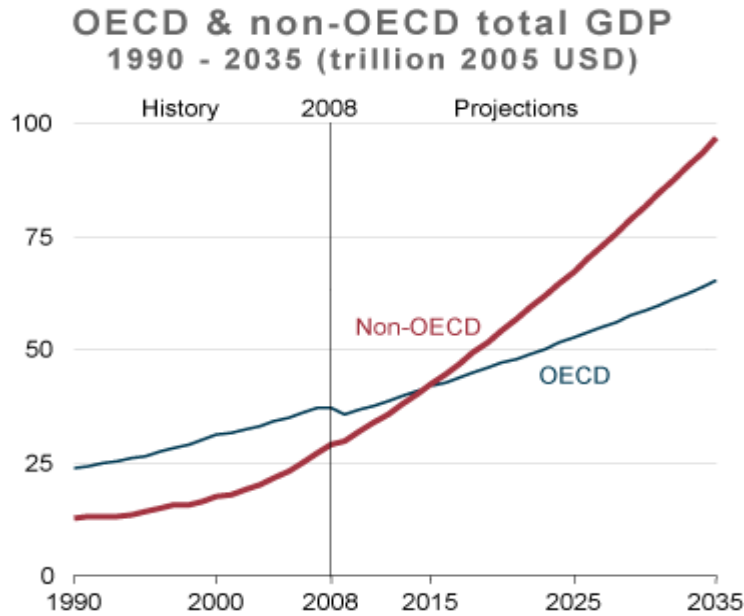


The Less Economically Developed Countries (LEDCs) and Newly Industrialised Countries (NICs) are projected to emit immense quantities and outpace the OECD community within a foreseeable future. The increase of CO₂ emission mainly lies within LEDCs and NICs and therefore they have been made a special point of interest, to try to curb the amount of CO₂ emitted into the atmosphere.

Background on CO₂ Emissions

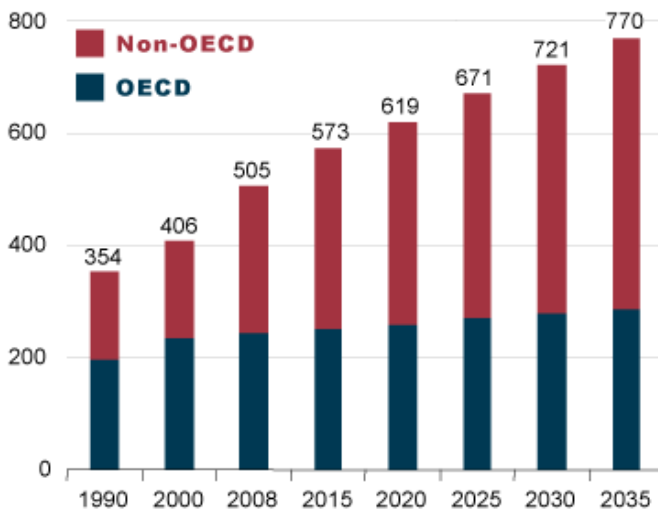
The economic prosperity brought by globalisation have caused enormous development in countries across the world e.g. China and Brazil. To fuel the economic growth, larger quantities of energy are being sought constantly to fuel the industry and consumer demands, which most often proves to be either oil or coal, as they exist in large enough quantities to fuel these economies. These two fuel sources are notoriously polluting, which endangers surrounding habitats and pollute the air as with most fossil fuels. However, they are cheap and easily obtainable on the global market. Most LEDCs and NICs cannot afford to prioritise clean energy over economic goals such as low unemployment, continued growth and an increase in export. The governments of NICs are especially pressed to maintain the economic momentum, to be able to provide an adequate amount of jobs to future generations. In the LEDCs, the politicians are hard-pressed to increase economic growth and better the lives of the average citizen, and the government will most likely use fossil fuels as the existing subsidies make it cheaper to buy fossil fuels. In order to remain cost efficient and able to compete in a fiercely competitive global market, LEDCs and NICs are forced to compromise on environmental concerns, as they cannot afford to lose foreign investment. Alternative energy sources have, however, over later years become more affordable, while especially oil have become more expensive. Many developing nations feel that it is not mainly their responsibility, as some nations use substantially more per capita than their own nation.

Graphs on Energy Consumption



- Graph showing the growth in energy consumption in the world for OECD member-countries and non-OECD countries.¹ Source: United States Department of Energy, Energy Information Administration, 2011.
- This is graph shows the historical and expected energy consumption of OECD and non-

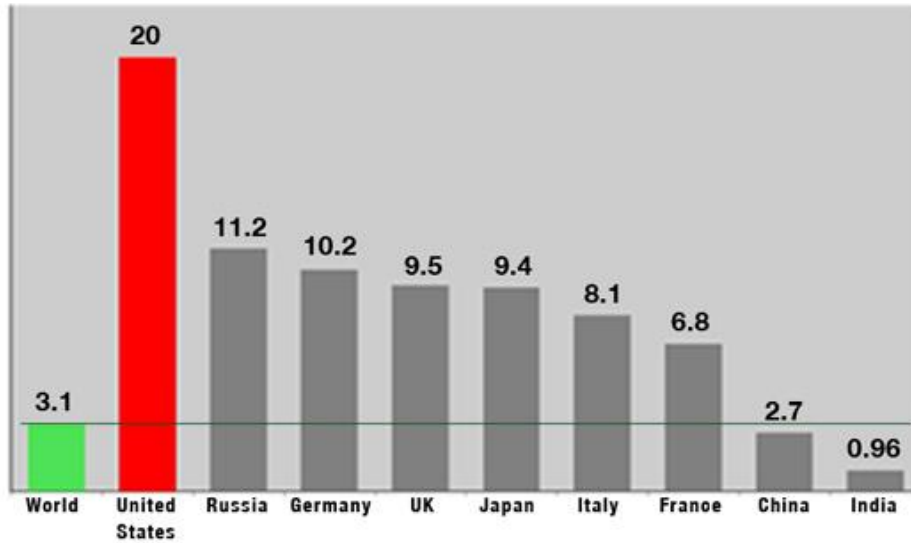
World energy consumption, 1990-2035 (quadrillion Btu)



OECD countries. Source: United States Department of Energy, Energy Information Administration, 2011.

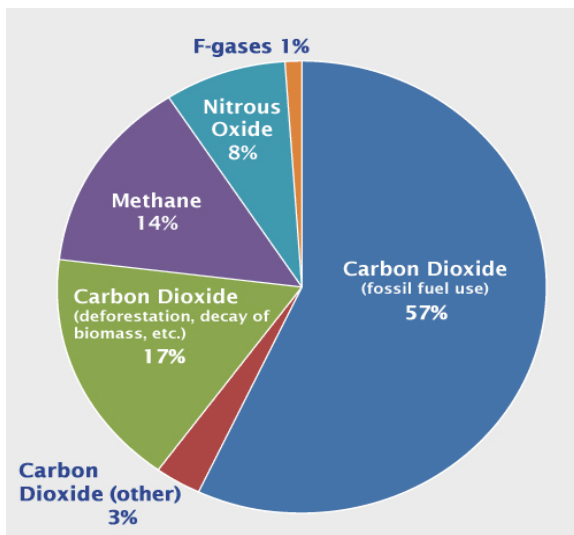
¹ Organisation for Economic Co-operation and Development

Comparing Emissions per Capita in tons of Carbon Dioxide



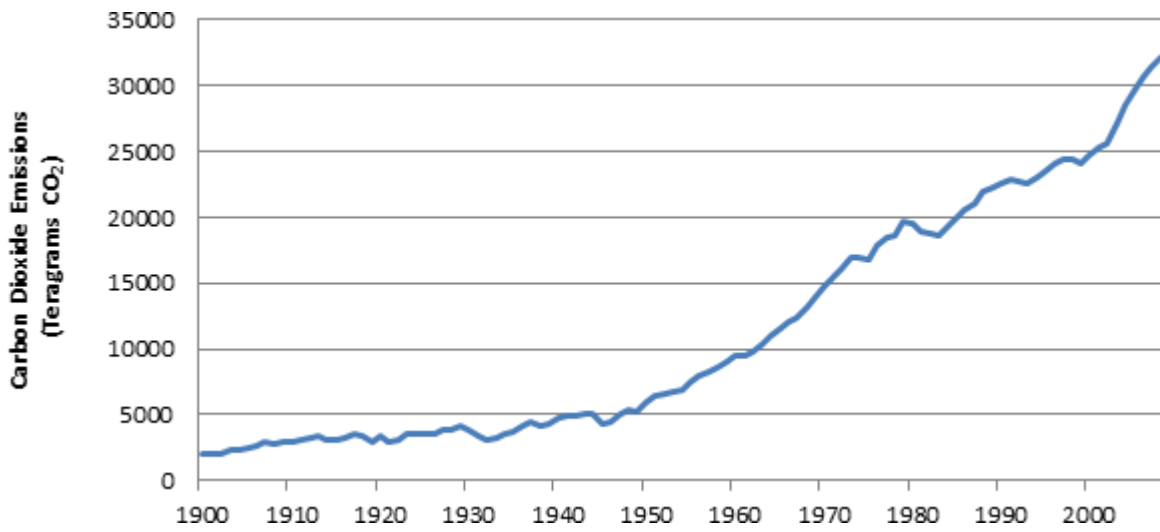
Source: Energy Information Administration
International Energy Annual 2003

- Graph showing the emissions per citizen of one country. Even though China overall emits more CO₂ than the United States, the United States pollute more CO₂ per person than any country in the world.

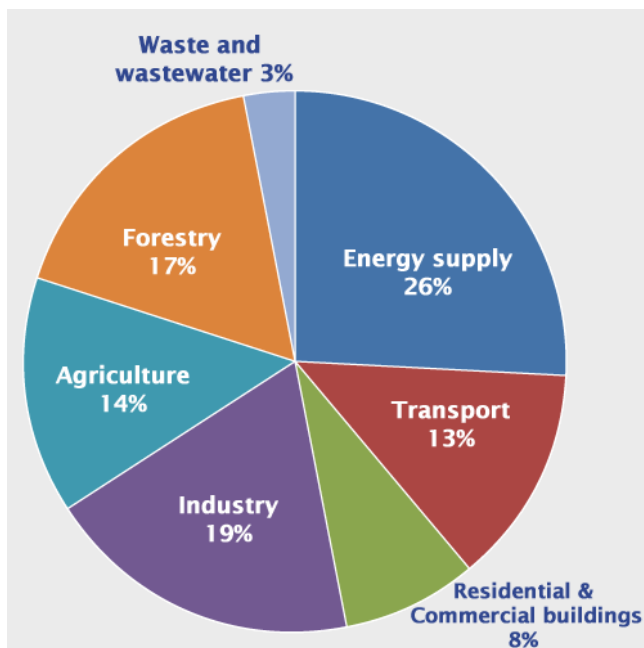


- Showing the different types of energy sources, which contribute to global warming (from EPA).²

² <http://www.epa.gov/climatechange/ghgemissions/global.html>



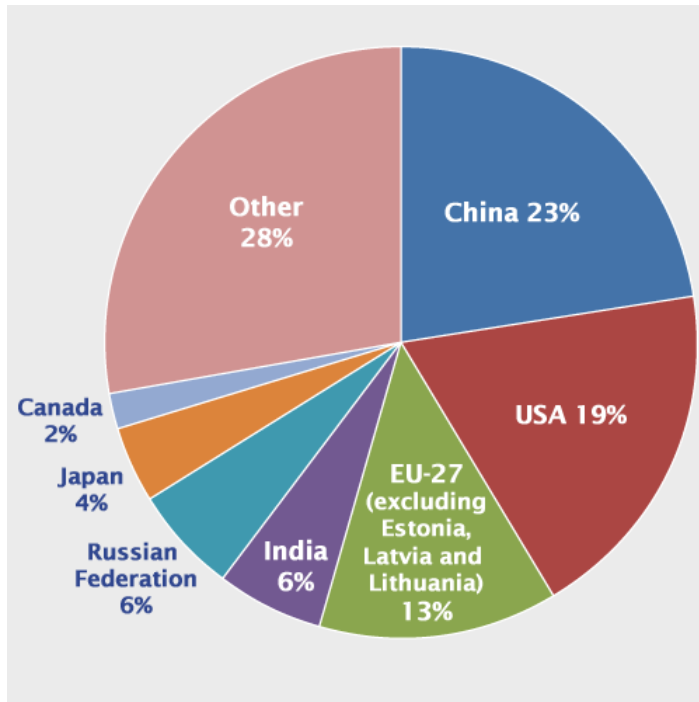
- Trend line from EPA showing the rapid increase in CO₂ emissions in later years.³



- Showing the different economic sectors' and their CO₂ emissions from EPA.⁴

³ <http://www.epa.gov/climatechange/ghgemissions/global.html>

⁴ <http://www.epa.gov/climatechange/ghgemissions/global.html>



- 2008 Global CO₂ Emissions from Fossil Fuel Combustion and Some Industrial Processes (million metric tonnes of CO₂).⁵

General Information on Global Warming

The consequences of global warming could be severe droughts, extremely high temperatures, increasing sea levels and dangerous weather patterns such as heavy monsoons, hurricanes and tornadoes. These phenomena have increased across many regions of the world and are projected to continue to increase. Erratic weather patterns could potentially pose significant security threats to all affected areas, as it might result in property damage and loss of human life. Droughts could affect agricultural production on a regional scale and result in severe hunger and malnutrition of many people. High temperatures have proven dangerous for the elderly. A warmer climate is also leading to an increased animal migration, which might upset certain ecosystems and lead to the extinction of species. The loss of biodiversity is a serious concern when considering the effects of global warming.

⁵ <http://www.epa.gov/climatechange/ghgemissions/global.html>

Overview of Future Effects of Global Warming on World Regions

North America

- Decreasing snow in the western mountains.
- 5-20% increase in yield of agriculture in certain areas.
- Increased amount of heat waves in cities that currently experience them with increased intensity and duration as well.

Latin America

- Switch from tropical forest to savannah in the Eastern Amazonia.
- Significant risk of biodiversity loss as many species may become extinct in tropical areas.
- Negative/Positive fluctuations in fresh water available for human consumption, agriculture and energy needs depending on territory.

Europe

- Increased risk of inland floods.
- Increased chance of coastal flooding.
- Increased erosion incurred from storms and sea level rise.
- A substantial glacial retreat in mountainous areas, which will reduce snow cover and heavily affect winter tourism. Extensive species losses to be expected.
- Reduction in crop productivity in Southern Europe due to potential droughts and increased temperatures.

Africa

- By 2020, approximately 75-250 million people are expected to lack basic access to water and availability of water.
- The yields from agriculture could be reduced by up to 50% in certain regions by 2020.
- Agricultural production, including access to food, may become severely damaged and impaired.

Asia

- Freshwater availability is projected to decrease in Central, South, East and Southeast Asia by the 2050s in regions containing enormous populations.
- Many coastal areas will be at an increased risk of flooding.
- Death rates are expected to increase due to disease associated with floods and droughts.

Definition of Important Key Terms

- **Global warming** - The increase in the world's temperature within the last century and decades, which is believed to be caused by the increase of certain gases such CO₂.
- **LEDC** – Less Economically Developed Country. It is a developing country with fewer economic resources and assets than developed countries.
- **NIC** – Newly Industrialised Country. It is a country, which is developing an extensive industrial complex and undergoing rapid economic growth.
- **Alternative energy sources** – Renewable energy from resources replenished within a human lifetime, such as sunlight, wind and waves, which are often significantly less destructive towards the environment.
- **Fossil fuels** – Non-renewable energy and unsustainable sources of energy that make up the vast bulk of the primary energy needs of the world. The extraction of fossil fuels results in heavy environmental degradation.
- **Greenhouse Effect** – The Greenhouse Effect is necessary for the continued existence of life on Earth. However, in later years, the Greenhouse Effect has intensified, which has caused global warming. The scientific community widely agrees to the fact that this has been caused by human activities especially the burning of fossil fuels and the clearing of forests (deforestation).
- **CO₂** – Carbon dioxide is an important greenhouse gas. The extensive use of fossil fuels, since the industrial revolution has increased the overall concentration over CO₂ in the atmosphere. The majority of scientists worldwide have agreed, that this has led to global warming.
- **CO₂ emissions** – CO₂ emissions are the primary source of global warming. When using fossil fuels (burning them), large quantities of CO₂ is emitted into the atmosphere. Most countries have, however, worldwide increased their CO₂ emissions in later year, particularly in the NICs.
- **Climate change mitigation** – Actions which seek to limit the effect and/or rate of the climate change, which is occurring. It seeks to reduce the use of fossil fuels and other greenhouse gases.

Timeline (Historic and Recent)

- **1950s** - U.S. scientist Charles Keeling measure carbon dioxide concentrations in the atmosphere at the South Pole and at Mauna Loa, Hawaii. The results from these measurements clearly show a steady rise in the concentration of CO₂.

- **1965** - U.S. President Lyndon Johnson tells Congress: "This generation has altered the composition of the atmosphere on a global scale through ... a steady increase in carbon dioxide from the burning of fossil fuels."
- **1988** - British Prime Minister Margaret Thatcher tells the United Nations: "The problem of global climate change is one that affects us all and action will only be effective if it is taken at the international level. It is no good squabbling over who is responsible or who should pay."
- **1988** - The United Nations establishes the Intergovernmental Panel on Climate Change (IPCC) with the purpose to investigate and evaluate the scientific evidence.
- **1992** – World leaders agree to the U.N. Framework Convention on Climate Change, which set goal of stabilising greenhouse gas emissions by 2000 (at 1990 levels), a target not met overall due to the fact that it was non-binding.
- **1995** - The IPCC concludes that humans are causing global warming, saying: "The balance of evidence suggests a discernible human influence on global climate."
- **1997** - The Kyoto Protocol is agreed upon in Japan. The developed nations consent to reducing their greenhouse gas emissions by on average at least 5 percent below 1990 levels by 2008-12. The United States, however, does not give its support and stays out of the deal.
- **2001** - The IPCC concludes it is "likely," or at least 66 percent probable, that human activities are causing the recent global warming.
- **2001** - President George W. Bush notes the U.S. National Academy of Sciences says greenhouse gases are rising "in large part due to human activity." He adds: "Yet, the Academy's report tells us that we do not know how much effect natural fluctuations in climate may have had on warming. We do not know how much our climate could, or will change in the future."
- **2007** - The IPCC says it is "very likely," at least 90 percent certain, that humans are the ones responsible for the global warming trend, which had continued for the last 50 years. It also said warming of the planet was "unequivocal."
- **2009** - A conference of 193 countries agree in December to "take note" of a new Copenhagen Accord to fight global warming change. Again, the accords were not legally binding and therefore they did not commit the countries to create a binding successor to the Kyoto Protocol when its first stage ended in 2012. The conference did recognise "the scientific view that the increase in global temperature should be below 2 degrees Celsius" and "deep cuts in global emissions are required."

- **2010** - United Nations Climate Change Conference in Cancún, Mexico, with more than 190 nations participating agree to slow climate change. They discussed what to do when the first stage of the Kyoto Protocol expires in 2012. The nations also discussed, whether to create a Green Climate Fund, which would channel billions of dollars to poorer nations to so-called “green” their economies and alleviate the effects of the rapid climate change.

Relevant Treaties and UN Resolutions

- United Nations Framework Convention on Climate Change
- Kyoto Protocol to the United Nations Framework Convention on Climate Change
- The Vienna Convention for the Protection of the Ozone Layer
- Montreal Protocol on Substances that Deplete the Ozone Layer

Position of Involved Countries and Parties

United States Environmental Protection Agency – They are in favour of CO₂ emission reduction and strong supporter of clean energy.

International Energy Agency – They are in favour of CO₂ emission reduction and strong supporters of clean energy.

Intergovernmental Panel on Climate Change (IPCC) – An UN agency that produces reports that support the UNFCCC⁶. It is an internationally recognised player with a strong say in climate change with the ultimate goal of reducing CO₂ emissions and stabilising the changes.

United Nations Environment Programme (UNEP) – An UN agency that coordinates global environmental policies and seek to help and foster environmentally friendly policies especially in developing countries, LEDCs and NICs.

Developed Countries – Overall, the developed countries are reducing CO₂ emissions in accordance with various treaties. They are making moderate progress, although some developed nations have elected to not pay heed to international agreements.

LEDCs – Pressured to reduce CO₂ emissions despite lack of funds to diversify their energy sources. They are seeking more support from the developed countries, although such efforts have been large in vain.

⁶ United Nations Convention on Climate Change

NICs – The NICs have proven reluctant to diversifying their energy sources but are diversifying and fuelling the increasing demand for alternate energy sources. Due to public pressure to improve environments in home countries, the governments of several major countries such as China has sought to improve the environment and reduce CO₂ emissions.

Questions to Consider (for the Delegate)

- How is your nation affected by this issue?
- What is your nation's view on the topic?
- Did your nation sign any treaties or resolutions regarding this topic?
- How has your nation acted on this issue?
- How is your country currently acting on the issue?
- What does your nation want to do about the issue in the future?
- What are the positions of the key players on this issue?
- Which UN resolutions/treaties on the issue is my country a party to? Why or why not?
- What could future developments of the issue look like?
- Which countries might be my allies, which countries will I have to convince of my principles and ideas?

Useful Links and Sources

Sources

- http://www.bbc.co.uk/schools/gcsebitesize/science/edexcel/fuels/oil_refining_fuelsrev6.shtml - Oil refining and fuels.
- <http://www.economist.com/topics/climate-change> - Climate change articles.
- <http://climate.nasa.gov/effects> - Current and future effects consequences of global change.
- <http://www.eesi.org/topics/fossil-fuels/description> - Fossil fuels.
- <http://www.epa.gov/climatechange/ghgemissions/global.html> - Global Greenhouse Gas Emissions Data.
- <http://environment.nationalgeographic.com/environment/global-warming/gw-effects/> - Global warming effects.
- <http://www.ipcc.ch/> - Intergovernmental Panel on Climate Change.
- <http://www.princeton.edu/main/news/archive/S32/13/25102/index.xml?section=topstories> - Erratic, extreme day-to-day weather puts climate change in new light.

- <http://www.unep.org/> - United Nations Environmental Programme.
- <http://time.com/43118/climate-change-global-warming-united-nations/> - Warming World Threatens Us All, Warns U.N. Report.

Useful Links for General Preparation for MUNOH conference, Position Paper and Resolution Paper

- <http://www.un.org/documents/resga.htm> - General Assembly Archive.
- <http://www.bbc.com/news/world/> - BBC World News.
- <http://unbisnet.un.org/> - United Nations Bibliographic Information System.
- <http://www.cfr.org/> - Council on Foreign Relations.
- <http://www.un.org/en/documents/charter/index.shtml> - UN Charter.
- <http://www.globalpolicy.org/index.php> - Global Policy Forum.
- <http://www.unausa.org/global-classrooms-model-un/how-to-participate/model-un-preparation/resolutions/friendly-and-unfriendly-amendments> - Friendly and unfriendly amendments.
- <http://www.unausa.org/global-classrooms-model-un/how-to-participate/model-un-preparation/resolutions/preambulatory-and-operative-clauses> - Preambulatory and operative clauses.
- <http://www.unausa.org/global-classrooms-model-un/how-to-participate/model-un-preparation/resolutions> - Resolutions.
- <http://www.unausa.org/global-classrooms-model-un/how-to-participate/model-un-preparation/position-papers/> - Position papers.

Note from Vice President

Dear Delegates,

Please pay heed to any issued deadlines and such information. If you have any further questions about the issue, please contact me via email (ec@munoh.de) or Facebook (preferably Facebook).

Best regards,

Frederik Nørum, Vice President of the Environmental Commission.