# High School Model United Nations 2009

UNEP – The Question of Establishing a Functional Framework for Global Emissions Reductions

Since the late 1800s the average temperature of the earth's surface has risen by 0.74 degrees C and is expected to increase by another 1.1 to 6.4 $^0$C from 1990 to 2100.[1] As ever increasing quantities of coal, oil and gasoline are burned and forests cleared the worlds temperature threatens to increase. Industrialization has caused increasing amounts of carbon dioxide and other *greenhouse gases* (GHG) such as methane and nitrous oxide, into the earth's atmosphere. These gases have been linked to the increases in the earth's average temperature, which is predicted to be "one of the most profound threats to people, economies and ecosystems in the 21st century."[2] Although GHGs are released by every country, the industrialized nations of the world have significantly contributed to the process. However, a functional strategy to reduce GHG emissions requires the participation of countries from every stage of development, including and especially, the developing nations such as China and India.

## Scientific Overview

Considering that the global average surface temperature has risen between 4 - 6$^0$C from the last ice age to today, the projected 6.4 $^0$C increase in the future is hardly inconsequential.[3] The Intergovernmental Panel on Climate Change has said an increase of just 2$^0$C would cause drastic changes in ecosystems as well as increased occurrences of extreme events such as floods, storms and droughts.[4]In conjunction with the hundreds of plant and animal extinctions the warming trend is predicted to cause, human lives will be severely disturbed as well. Storms, floods and droughts are expected to become more severe, while agricultural yields decrease all over the world, especially in tropic and sub-tropic regions. In addition to the agricultural dilemma, the higher temperatures cause the ocean volume to expand, while melting glaciers and ice caps contribute to the increasing

[1]The Pembina Institute of Sustainable Energy Solutions. Climate Change. Oct 24, 2008. http://climate.pembina.org/home.
[2] Ibid
[3] Ibid
[4]UNFCCC. *United Nations Framework Convention on Climate Change.* November 2008. http://unfccc.int/2860.php.

sea levels. In the 20th century the "average sea level rose by 10 to 20cm" and it is expected to increase by an additional 18 to 59cm by the year 2100.[5]The rise in sea level threatens to flood the most densely populated coastlines of every continent and completely submerging entire islands. These changes endanger food and fresh water supplies and will trigger mass migrations of people, which will engender more and more political, social and economic challenges.

The IPPC predicts that just a 2 degree increase in the average temperature of the world could elicit many of these detrimental changes. However, in order to stay below the 2°C limit, GHG emissions must be reduced to 50% of the 1990 level by 2050, and that "developed countries reduce their emissions by 25-30% below 1990 levels by 2020 and 80-90% below 1990 levels by 2050.[6]

**Conventions and Protocols**

In 1994, the United Nations Framework Convention on Climate Change was established and ratified by 192 countries, near universal membership. The Convention encourages its members to evaluate information on GHG emissions and to launch national policies to reduce their emissions. The Convention also includes the provision of financial and technological support to developing countries in aiding them to become more environmentally friendly. The UNFCCC's "ultimate objective is to achieve […] stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic [human-caused] interference with the climate system." [7]

Recently, 38 countries ratified an addition to the UNFCCC, the Kyoto Protocol, and an international agreement that sets targets for reducing GHG emissions. The target reduction is an average 5% against 1990 levels between 2008 and 2012.[8]The fundamental distinction between the Kyoto Protocol and the Convention is that the UNFCCC encourages its countries to reduce their emissions rates, while the Kyoto Protocol legally binds them to their commitment. A first step towards a global emissions reduction strategy, the Kyoto Protocol has provided the framework for future agreements on climate change. The Protocol has been set to end by 2012 and thus, a new multilateral framework must be established to continue the world's progress on emissions reduction.

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[5]Ibid
[6]Ibid
[7]UNFCCC. *United Nations Framework Convention on Climate Change*. November 2008. http://unfccc.int/2860.php.
[8] Ibid

**Possible Solutions: Developing a Functional Framework**

While some increase in global temperature appears to be inevitable, it is widely acknowledged that significant action must be taken to reduce global emissions in an effort to mitigate the effects of climate change. The Question of Creating a Functional Global Emissions Reduction Framework is critical in achieving this goal. A functional framework will outline emissions reduction targets and offer incentives, disincentives and strategies to achieve these targets. An innovative approach is also necessary to address the significant role of technology, alternative fuels, and environmental conservation in global emissions reduction. Possible considerations in creating a Functional Global Emissions Framework include:

- Setting definite emissions reduction targets for countries or groups of countries, and outlining incentives and disincentives to achieve targets
- "Cap and trade" strategy: a definitive cap is set on emissions for a particular jurisdiction. If the country, state or industry pollutes above these emissions targets they can "buy" carbon credits from entities that produced less emissions than their target and thus have 'credits' to spare.
- Clean Development Mechanisms (CDMs) that allow industrialized countries to implement programs for emission reduction in developing countries as part of their own emissions-reduction commitment
- Encouragement of the development of low-emissions or alternative (non-fossil-fuel) energy sources. Some examples might include wind energy, bio-fuels, solar energy or geothermal energy.
- Encouragement of scientific research and technology such as carbon sequestration, which keeps CO2 out of the atmosphere by storing it (for example, injecting it underground).
- Conservation of "carbon sinks", natural ecosystems such as wetlands and forests that absorb carbon dioxide from the environment.

This list is by no means complete and serves only to identify a few factors to consider when developing an emissions reduction framework.

**Considerations and Challenges**

A delicate balance between economy and environment must be maintained in developing a global emissions framework. There are widespread concerns that requirements for drastic emissions cuts will have severe economic impacts, especially for the many countries whose economies are dependent on fossil fuels. The short-term economic consequences of an emissions reduction scheme must be assessed, but these must also be balanced with the potential economic consequences of climate change.

Definitions of how emissions reductions are measured are one aspect of a framework that needs to be considered carefully. Emissions could be calculated using a variety of formulae: per capita; per unit of economic output; as a quantitative figure (i.e. in millions of tons of gas), or as a figure in relation to a benchmark level, such as 'based on1990 levels'. These factors can have significant impacts on the implications of the framework for different countries.

One of the major barriers to creating a functional framework for global emissions reduction is the question of which nations will pick up the financial burden of emissions reduction. Global wealth is not distributed equally between nations, nor do all nations emit equal amounts of greenhouse gases. Developed nations such as Britain and the United States have been emitting unrestricted, high levels of emissions for over 150 years and have been major contributors to the greenhouse gas buildup that affects us today. In contrast, undeveloped or developing nations, including India and China have not historically been large contributors to emissions levels. These states may feel that emissions reductions policies penalize them for problems that they did not create. However, if the international goal is to reduce global emissions over the next years or decades, imposing no restrictions on the emissions of developing countries for the next 150 years would hardly be prudent. As of 2005, the $CO_2$ emissions of developing regions surpassed the emissions of developed regions by over 1 billion metric tons. The emissions of Southeast Asia alone have increased by 82 percent from 1990 to 2005. (Millennium, 2008). A functional framework for global emissions reduction must not seriously impede the development of unindustrialized nations. It must strike a balance between the needs of developing countries and the wishes of developed countries. For a framework to be functional, it must entail significant emissions reductions, but it must also achieve compromises to ensure that all major parties agree to implement the framework. One shortfall of the current Kyoto Protocol is that some of the world's largest emitters, namely India, China, the USA and Australia, either were not required to meet specific targets or chose not to implement the Protocol. To solve this complex question, delegates will be requiring an attitude of innovation, flexibility, compromise, and genuine concern for the future of our societies and our planet to create a balanced and functional framework for emissions reductions.

**Links**

- The Pembina Institute of Sustainable Energy Solutions. Climate Change. http://climate.pembina.org/home
- UNFCCC. *United Nations Framework Convention on Climate Change*.http://unfccc.int/2860.php
- The CIA World Fact Book. https://www.cia.gov/library/publications/the-world-factbook
- UN Partners on Climate Change. *Gateway to the United Nations System's Work on Climate Change*.http://www.un.org/climatechange
- UNEP. *The United Nations Environment Programme*. http://www.unep.org/
- IPPC. *Intergovernmental Panel on Climate Change*.http://www.ipcc.ch/
- An Inconvenient Truth. http://www.climatecrisis.net/
- United Nations Framework Convention on Climate Change. http://unfccc.int/2860.php/