SOFIMUN
Sofia International Model United Nations

Edition: III/2010
Period: 24-31 July 2010
Location: Sofia, Bulgaria

Website: www.sofimun.org
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"Search Of Future Ideas, Models Us Now"

COMMITTEE:
COMMISSION ON SUSTAINABLE DEVELOPMENT

CHAIRPERSON:
SALLY MEOUCHE & BOYAN STANOEV

TOPIC: (A)
CLIMATE CHANGE: THE NEXT STEP

UNITED NATIONS COMMISSION ON SUSTAINABLE DEVELOPMENT (CSD)

The United Nations Commission on Sustainable Development (CSD) was established by the UN General Assembly in December 1992 to ensure effective follow-up of United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit.

The Commission is responsible for reviewing progress in the implementation of Agenda 21 and the Rio Declaration on Environment and Development; as well as providing policy guidance to follow up the Johannesburg Plan of Implementation (JPOI) at the local, national, regional and international levels. The JPOI reaffirmed that the CSD is the high-level forum for sustainable development within the United Nations system.

The CSD meets annually in New York, in two-year cycles, with each cycle focusing on clusters of specific thematic and cross-sectoral issues, outlined in its new multi-year programme of work (2003-2017) (E/CN.17/2003/6).

The CSD has opened its sessions to broad participation from both governmental and non-governmental actors, and it supports a number of innovative activities, such as the Partnerships Fair, the Learning Centre and a series of panels, roundtables and side events. The High-level segment features dialogue among Ministers, and Ministers also hold a special dialogue session with Major Groups.

As a functional commission of the UN Economic and Social Council (ECOSOC), CSD has 53 member States (about one third of the members are elected on a yearly basis). Each session of the CSD elects a Bureau, comprised of a Chair and four vice-Chairs.

More at: http://www.un.org/esa/dsd/csd/csd_aboucsd.shtml

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Topic A: Climate Change: the next step - SUMMARY

Climate change is an inevitable and urgent global challenge with long-term implications for the (sustainable) development of all countries. The 2007 Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report warned of changing weather patterns and rising sea levels due to accelerating Greenhouse Gas (GHG) emissions resulting from human activities. Climate change is an issue with a multitude of dimensions as a warming climactic system is expected to impact the availability of basic necessities like freshwater, food (security), and energy. "We need to shift gear and think differently," asserted Carlo Scaramella, coordinator of climate change planning and strategy for the UN World Food Programme, but "we are not going to have easy solutions."

Both Agenda 21 and the Johannesburg Plan of Implementation (JPOI) assert that the United Nations Convention on Climate Change (UNFCCC) is the key instrument for addressing climate change. The Kyoto Protocol, which entered into force in 2005, sets binding emission reductions targets for Annex countries for the first commitment period 2008-2012. The December 2009 negotiations in Copenhagen for the post-Kyoto period did not result in a legally binding agreement. In less than two years from the closing date, we are nowhere near reaching the targeted emissions levels.

The challenge to address climate change effectively is aggravated by current production and consumption patterns. In the last 20 years, for example, there has been a two-thirds increase in global household energy use and road vehicle fleets have doubled. In the years ahead, the challenges to address climate change will only become harder. According to the Stern Review, policies for tackling climate change will cost nations 2% of their GDP while climate change risks will cost them 20% of it in 2030. Developed countries should reassess their current consumption and production patterns whilst developing nations need to reconsider which economic growth models they will follow.

The SOFIMUN 2010 Commission on Sustainable Development will discuss several adaptation strategies in order to link climate with development, whilst focusing on technology and energy for sustainable development, water management, and the control of transboundary atmospheric pollution. What should be the next step towards an effective solution?

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1. INTRODUCTION

Climate change can manifest itself in a number of ways e.g. changes in regional and global temperatures, changing rainfall patterns, expansion and contraction of ice sheets as well as sea level variations. These regional and global climate changes are responses to external and/or internal forcing mechanisms. An example of an internal forcing mechanism is the variation in carbon dioxide concentration in the atmosphere that causes the anthropogenic-enhanced greenhouse effect. A good example of an external forcing mechanism is the long-term variation in the Earth's orbit around the sun, and thus the alterations in the regional distribution of solar radiation on the Earth. Throughout the course of our debate, we will focus on the internal forcing mechanisms as they are of more relevance to our capabilities.

The UN General Assembly established the Commission on Sustainable Development in 1992 as a follow up of the United Nations Conference on Environment and Development (UNCED); also known as the Rio Earth Summit. It was primary responsible for reviewing the progress of implementing Agenda 21 and the Rio Declaration on Environment and Development; as well as providing policy guidance to follow up the Johannesburg Plan of Implementation (JPOI) as a bottom up governance strategy approach.

Consequently, climate change has been a thematic focus as well as a re-occurring and important cross-cutting issue discussed at the CSD sessions, seeing that chapter 9 of Agenda 21 addresses the issue under its "Protection of the Atmosphere" theme in Section II. Important international agreements such as the 1992 United Nations Framework Convention on Climate Change (UNFCC) are also mentioned in there.

As a result, the issue has been brought up in CSD's fourteenth and fifteenth sessions in 2006 and 2007 respectively.

2. STATEMENT OF THE PROBLEM

The United Nations Environmental Panel and World Meteorological Organization established the Intergovernmental Panel on Climate Change (IPCC) in 1988 jointly because of worries about the possibility of global warming. The purpose of the IPCC is the continued assessment of the state of knowledge on the environmental and socioeconomic impacts and response strategies to climate change. The IPCC is recognized as the most authoritative scientific and technical voice on climate

change. Its assessments have had a profound influence on the negotiators of the United Nations Framework Convention on Climate Change (UNFCC) and its Kyoto Protocol.

The most recent report by the IPCC resulted in nearly 3000 pages of detailed review and analysis of published research. This report states that there is clear evidence for a 0.75o C rise in global temperatures and 22cm rise in sea level during the 20th century. The IPCC synthesis also predicts that global temperatures could rise between 1.1o C and 6.4oC by 2100, and that sea levels could rise between 28 and 79cm, more if the melting of Greenland and Antarctica accelerates. Moreover, weather patterns will become less predictable and the occurrence of extreme climate events such as storms, floods, heat waves, and droughts will increase.

The IPCC's Fourth Assessment Report also observed that, "between 1970 and 2004, greenhouse gas emissions increased by 70 per cent, and carbon dioxide (CO2) – by far the largest source with 77 percent of total emissions – grew by about 80 per cent". Atmospheric concentrations of CO2, methane (CH4) and nitrous oxide (N20), the IPCC found, had risen markedly since 1750 due to human activity, and today, far exceed pre-industrial values. Hence all these greenhouse gases inevitably contribute to (anthropogenic) global warming.

Some consequences of the aforementioned climatic changes are listed below:

- By 2020, some 75 to 250 million people in Africa will face increased water shortages. Yields from rain-fed agriculture (dominant method) could fall up to 50 per cent in some African countries.
- About 20-30 per cent of plant and animal species will likely face increased risk of extinction if global average temperature increases exceed 1.5°-2.5° C.
- Widespread melting of glaciers and snow cover will create risk of flash floods and, over time, reduce annual melt water from major mountain ranges (i.e.: Hindu-Kush, Himalaya, Andes), where more than one billion people live.
- Seven of ten disasters are now climate-related.
- More than 20 million people were displaced by sudden climate-related disasters in 2008 alone.
- An estimated 200 million people could be displaced as a result of climatic changes by 2050, resulting in a massive 'Climate Refugees' crisis.

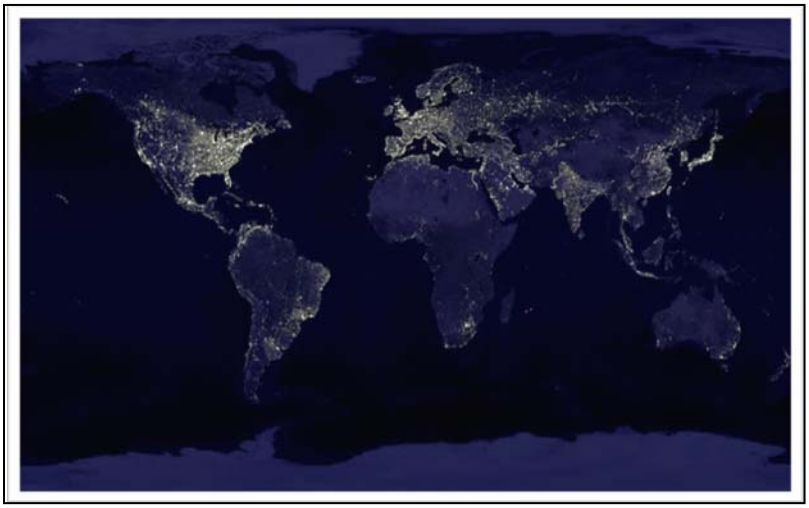
Sources: IPCC, UN, Stern Review 2006

3. CHALLENGES

At the United Nations Climate Change Conference in Bali, Indonesia, in December 2007, 187 countries agreed to launch a two-year process of formal negotiations on strengthening international efforts to address the problem of global warming. The key issues under the so-called Bali Action Plan, are defined as taking action to adapt to the negative consequences of climate change, such as droughts and floods; devising ways to reduce greenhouse gas emissions; finding ways to deploy climate-friendly technology; and financing adaptation and mitigation measures. Mitigation, adaptation, technology and financial resources have since then become the four key building blocks for strengthening the global response to climate change.

A key challenge lies in the new international order and the relatively uneven distribution of political power among states, which may be considered one of the most enduring effects of the Industrial Revolution. Since then, as a normal corollary of the new order, the technologically advanced countries have become the "better-off" economically, while most of the technologically less endowed countries became labeled under the United Nations Office of the High Representative for the Least Developed Countries as LDCs, and have been consequently seeking to alter, through development, the global status quo. This permanent struggle has resulted in both sides adopting unsustainable paths in their production and consumption activities, and hence making them unwilling to compromise on important measures that address the aforementioned problem.

To further illustrate the aforementioned divide some examples are offered. To raise the living standards of the world's existing population to American levels the annual production of iron would have to increase 75 times, that of copper 100 times, that of lead 200 times, and that of tin 250 times. For a country such as India to make use of fertilizers at the per capita level of the Netherlands, it would consume one-half of the world's total output of fertilizers. Clearly, the parity of the developing countries with the developed ones is no longer compatible with the existing stocks of natural resources.



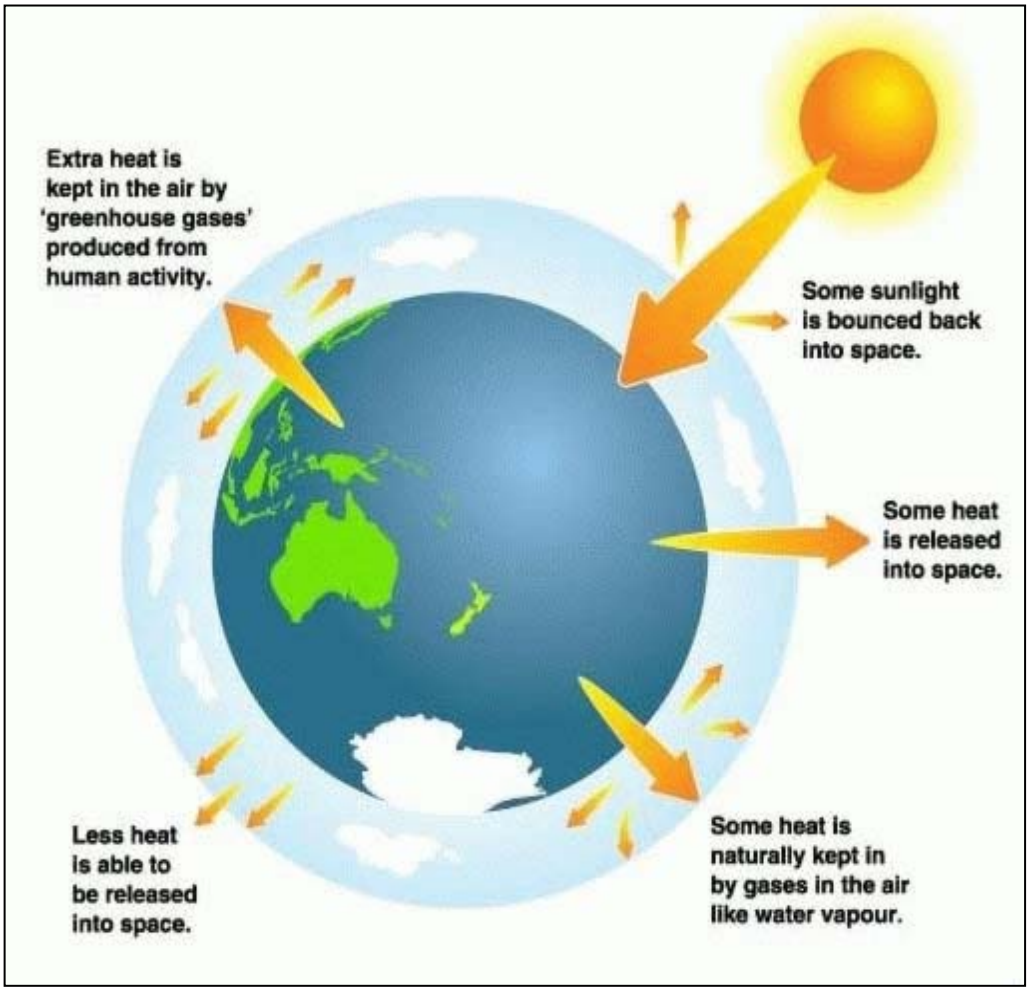
Another example is the energy consumption. It is clearly visible from the image above that there is an unequal distribution of energy consumption in the world. Parts of the United States, Western Europe, Japan and parts of China consume a lot more than the rest of the world, which is clearly visible from the more glowing light areas in the map. However, it is worth noting that population levels are a lot higher in the darker parts of the world such as in Africa and Central Asia (notice India's lights compared to Western Europe's). ***(Nasa Image: 1. Merged satellite photo of the World at night)***

4. PAST ACTIONS AND PROPOSED SOLUTIONS

Scientists feel that 2o C is the tipping point when almost all people in the world become losers from climate change. The Stern Report in 2007 suggested that the cost of adapting to a low-carbon economy now would be about 1% of the world GDP, compared to costs of up to 20% world GDP if nothing would be done.

Overall, several international and regional protocols, treaties and conventions have been established to address the problem of climate change, its causes and its impacts. A number of important actions are mentioned below.

Agenda 21, the Rio Declaration on Environment and Development, and the Statement of principles for the Sustainable Management of Forests were adopted by more than 178 Governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 3 to 14 June 1992. The full implementation of Agenda 21, the Programme for Further Implementation of Agenda 21 and the Commitments to the Rio principles, were strongly reaffirmed at the World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa in 2002.



In the past 15 years two other important steps have been taken. The first occurred in December 1997 when the Kyoto protocol to the United Nations Framework Convention on Climate Change was drawn up, the second was its ratification. The protocol with it's the principles resembles a world wide treaty on cutting greenhouse gas emissions. Moreover, it states that all

developed nations should cut their emissions. Despite this agreement however some countries have continued to increase their emissions.

	Kyoto	2004
Australia	+8	+25.1
Italy	-6.5	+12.1
EU	-8	-0.6
Japan	-6	+6.5
Russia	0	-32
UK	-12.5	-14.3
USA	-7	+15.8

Table 1: Comparison of selected countries' Kyoto Protocol legal targets and their 2004 emissions.

The treaty does not include developing countries. This is a concern, because with the expansion of large developing countries also their emissions will increase.

A total of $500 million in adaptation funds per year has been provided to help developing countries to adapt to climate change and to provide new clean technologies. Industrial countries are also able to plant and manage forests or change farming practices. This allows them to claim credit for removing carbon dioxide from the atmosphere. In addition, there's a provision in the Kyoto Protocol concerning national and international trade in carbon emissions.

At the moment, very few countries are on the way to make their 2012 cuts negotiated in the Kyoto Protocol. Novel ways of enforcing compliance at the international level must be found; otherwise the shortcomings of Kyoto will become a recurrence in all international agreements.

The idea that more than 170 countries need to agree to the Kyoto Protocol is symbolic but not proven to be very practical since in reality fewer than 20 countries produce at least 80% of the world's emissions. There was some official realization of this in 2006 when the G8+5 climate change dialogue was established to bring the biggest 13 emitters together for key mitigation discussions.

While mitigation tackles the causes of climate change, adaptation focuses on its effects. For some of the aforementioned reasons, we will focus more extensively on the adaptive strategies within this year's SOFIMUN CSD sessions but also make sure to give out recommendations for the post 2012 (expiry of Kyoto) mitigation negotiations.

The SOFIMUN 2010 CSD will take a sector versus nation approach, and according to the 2007 IPCC report, adaptation options are available in numerous sectors. Our focus will be on energy and technology as well as water management, with ways to mitigate and adapt to climate change.

Water management adaptation proposals so far have included rainwater harvesting, water conservation and the creation of marshlands as a buffer against sea level rise and flooding. The movement and relocation of people from stressed river basins has also been put on the table.

Energy and the transfer of climate friendly technology has been one of the most popular adaptive strategies to be proposed. The Bali Action Plan called for "enhanced action on technology development and transfer to support action on mitigation and adaptation". This included:

- Removing obstacles and creating incentives to promote access to affordable, environmentally sound technologies;

- Accelerating deployment, diffusion and transfer of such technologies from the developed world to developing nations;

- Cooperating on research and development of current, new and innovative technologies;

- Reviewing the effectiveness of mechanisms and tools for technology cooperation.

Bali Action Plan, proposals

One needs to keep in mind that:

- The Clean Development Mechanism (CDM), established under the Kyoto Protocol, provides a legal framework and a marketplace for technology diffusion opportunities.

- The Global Environment Facility (GEF) allocates and disburses over $250 million per year in grants for clean energy-related activities, including technology transfer projects.

- International Intellection Property Rights (IPRs) like patents and licenses are usually barriers to various technology transfer processes.

5. QUESTIONS A RESOLUTION MUST ANSWER

The Questions a Resolution Must Answer (QARMA) address several critical aspects. These questions are also meant to guide research and preparation for conference:

- The most important global political question is what happens after 2012 when the Kyoto protocol comes to an end. What role should the developing world have in future post 2012 agreement negotiations and should they be legally bound to any of these agreements?
- Should global carbon trading become part of an international agreement on climate change? At the moment only Annex 1 countries (developed world) in the Kyoto protocol can trade carbon.
- How should the CSD deal with critique by the developing world, that adaptation mechanisms proposed by the commission and Agenda 21's implementation strategies do not meet their basic need for development?
- What adaptive strategies can be developed and adopted in reference to the two sectors mentioned above (water and energy) to decrease the impacts of climate change?

Suggested Reading and Additional Sources

Topic A: Climate Change: the next step

For a better understanding of the issue, the following sources should be consulted, but they are not exhaustive, therefore it is recommended that the delegates research the topic on their own, both through academic sources, as well as informal channels.

Mandatory

The following materials should be read by the participants in order to gain an in-depth view on the issue.

1. Important is the website of the UN Division for Sustainable Development
2. Moreover, check out the Climate Change section under 'Areas of Work'

3. MAINSTREAMING ADAPTATION TO CLIMATE CHANGEIN LEAST DEVELOPED COUNTRIES (LDCS)
4. To better understand the topic, we suggest you to go over some case studies for Sustainable Development from the Division of Sustainable Development Case Studies database

Additionally:

5. Kyoto Protocol
6. Agenda 21
7. UNEP Climate Change
8. UNDP: The Bali Action Plan: Key Issues in the Climate Negotiations
9. USA EPA: Regulatory Initiatives
10. OCC Stern Team
11. COP15

Interesting videos:

12. http://www.youtube.com/watch?v=zORv8wwiadQ
13. http://www.storyofstuff.org/international/

Suggested

For information on the topic these links might be useful. Also search the sites for additional articles on the subject.

14. Check the information provided by the national authority of the state which you represent or the cooperation with the NGO which you represent.
15. Any other relative materials.