



UNEP 2012 BACKGROUND GUIDE

2012



LETTER FROM THE DAIS

Hey delegates,

Welcome to MITMUNC 2012! We are really excited to have you guys enrolled and if you all are not excited, be excited now because you have an amazing weekend ahead of you!

My name is Muneeza Patel, and I am a first-year student pursuing Biological Engineering here at MIT. I have attended several Model UN conferences as a high-school student, including some international conferences, and I have chaired for my high school in the past, as well. Additionally, please welcome my co-chair, Daniel Stallworth, a pre-Law student in MIT's Class of 2012. This will be his first chairing experience, but he is as excited as I am to be working with you over the duration of the conference.

This year, UNEP is going to discuss two very important issues at hand. Firstly, the issue of biodiversity which has yet not been accepted as a global crisis, but is going to become one soon, if not addressed in the international forums. Secondly, we will model the ongoing debate about the Kyoto Protocol and increasing the efficiency of energy projects. So be prepared to indulge yourselves in thinking about these issues and working your way through them.

Do read the background guides thoroughly and feel free to contact us via e-mail with any questions you might have prior to the conference. We look forward

to hearing your wonderful ideas and reading your position papers.

Happy researching! ☺

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Topic 1:**BIODIVERSITY
RESTORATION FOR
SUSTAINABLE
DEVELOPMENT FOOD
SECURITY AND
LIVELIHOODS.****Is the world facing a biodiversity crisis?**

89 mammalian species have gone extinct in the last 400 years, which is almost 45 times what would have been predicted from past extinction patterns (Public Broadcasting Service 2001). This increase in extinction rate can be attributed to a variety of factors, including increased pollution levels, habitat destruction, climate change, and increased resource consumption. These problems are exacerbated by a lack of awareness regarding the biodiversity crisis and by a global failure to properly implement and enforce necessary regulations.

UNEP & Biodiversity

In April 2002, governments at the sixth meeting of the Conference of the Parties to the Convention on Biological Diversity, which is administered under UNEP's aegis, agreed "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national levels as a contribution to poverty alleviation and to the benefit of all life on earth". This target was endorsed by the World Summit on Sustainable

Development, and is the focus for UNEP's biodiversity-related activities. Biodiversity refers to the uncoun- ted variety of living things on the planet. These living organisms, interacting among themselves and with the non-living environment, comprise the ecosystems of the world. They supply food, medicines, timber and fuel, and play a fundamental role in providing breathable air, conserving soils and stabilizing climates. These benefits, or 'ecosystem services', which are ultimately essential for human life on earth, are the basis of a range of industries, from agriculture and biotechnology to fisheries and ecotourism. The value of ecosystem services was the subject of the five-year Millennium Ecosystem Assessment (MA), in which UNEP was a partner. The MA concluded in 2005, and its synthesis reports reveal that ecosystem services are habitually undervalued, at an uncountable cost to society, especially the poor who rely most heavily on the planet's natural capital for health and livelihoods.

Ways in which biodiversity is important to us.*Provisioning services*

These are services important to humans for example food, water and pharmaceutical products.

Regulating Services

Services that work to maintain a natural balance. Regulating services include the filtration of pollutants in wetlands, climate

regulation through the carbon cycle, protection from disasters.

Cultural services

Services provided by biodiversity that have some form of social value. These include but are not limited to recreation, aesthetic beauty, and education. Hence, Biodiversity is invaluable, both qualitatively and quantitatively. Qualitatively, when biodiversity is lost, a part of an intricate and ancient system is also lost. The loss of biodiversity also corresponds to the loss of the very things that allow human life to thrive on Earth. Quantitatively, biodiversity is correlated to a loss of fiscally valuable ecosystem services. Ecosystem services give society so-called "dividends" from natural capital. But, to allow for the continued production of these crucial dividends, natural capital (i.e., biodiversity) must be preserved. In a 2008 report, the European Commission estimated that biodiversity provides "ecosystem services worth 50 billion Euros per year", or about 68 billion US dollars (USD). They also estimated that, by 2050, economic loss due to loss of ecosystem services would amount to almost 14 trillion Euros (or 19 trillion USD). This would be equivalent to approximately 7 percent of the world's GDP in 2050.

Biodiversity also includes microbes which are extremely important to sustaining life on Earth. Many varieties of microbes function in the nitrogen cycle and/or as decomposers. Decomposers create and store nutrients necessary for plant growth. Some microbes generate oxygen; others

have symbiotic relationships with animals and plants and provide their hosts with nutrients including carbon, nitrogen, and phosphorus. Studies have shown that a reduction in soil microbial diversity reduces plant growth in that soil. For example, one study found that "in soils with experimentally simplified microbial communities, plants were smaller, had reduced chlorophyll content, produced fewer flowers, and were less fecund than plant populations grown in association with more complex soil microbial communities" (Lau and Lennon, 2011). Another study estimates that there are over 20,000 species of plants that would not even be able to exist without microbial assistance. Because microbes support global ecosystems in so many ways, loss of microbial diversity reduces the overall ability of ecosystems to function (Van der Heijden et. al., 2007).

Now that we have established that all forms of biodiversity are important to us, in order to come up with an effective set of solutions we need to investigate all the factors that lead to the decline of biodiversity.

What causes the loss of biodiversity?

Climate Change

Climate change is the permanent change in weather patterns and temperature fluctuations. It can affect everything from a single ecosystem to the biosphere in its entirety. Today, the public generally associates climate change with global warming, otherwise known as

anthropogenic climate change. This is the rise in atmospheric temperatures caused by the release of excessive amounts of carbon dioxide and other greenhouse gases. In the last century, the average global temperature has risen approximately 1.6 degrees F; disconcertingly, most scientists agree that the point of no return is a rise 2 degrees F. Beyond these levels (approximated to be 450 ppm carbon dioxide), the planet will experience unprecedented changes in the global climate and a significant increase in the severity of natural disasters (Dresner, 2008). Species thrive in certain areas because they have adapted so that they can use the resources offered by their environment. Though it may seem slight, a 2 degrees F increase in temperature is significant enough to alter seasonal weather patterns so that ecosystems cannot provide the habitats their species depend on. Because anthropogenic climate change is occurring at such an accelerated rate, some estimate that the loss of species is currently happening at 1000 times the natural rate of extinction (Esterman, 2010). Species simply do not have enough time to adapt to altered habitats or migrate to better suited ecosystems.

Invasive species

The world consists of a large finite number of ecosystems that coexist, but often face trouble when their distinct habitats are altered in the slightest. Often times the cause of this problem is the introduction of invasive species that grow quickly and manifest themselves in the ecosystem. Invasive species are flora or fauna that are non-native to an

environment, and/or alter habitats by changing the natural controls of that distinct ecosystem (US Department of Agriculture).

These species are organisms that have the ability to adapt easily to new environments and often reproduce at high rates, allowing them to establish themselves in an ecosystem in large quantities in a short period of time. In the new environment, the invasive species often does not have a natural predator to stabilize its population, so it expands without limit. With its overwhelming numbers, the species can out-compete native species for nutrients, and cause extinctions. These extinctions cause further repercussions in the food chain that disrupt the whole ecosystem (Convention of Biological Diversity).

Urban Sprawl

In October of the year 2011, the world population of human beings reached 7 billion, and the population is expected to pass 10 billion by the end of the 21st century (USA Today). Between 50 percent and 90 percent of these humans live in cities, with the variation depending on geographical area. In addition, the rate of increase of city population is increasing in the vast majority of countries. This generally leads to the expansion of city boundaries, which in turn has a direct impact on biodiversity. Expanding city boundaries can lead to habitat loss and interfere with the natural life cycles of animals living near cities. One study, by Pillsbury and Miller, on frogs in the state of Iowa in the United States showed that the number of frogs was directly related to the distance of their habitat to an urban

area. They found that as the urban density increased, the number of frogs in that area decreased proportionally (Pillsbury & Miller, 2008). Other studies have shown declines in bird populations linked to urbanization. species affected by urbanization into three categories: urban avoiders, urban adapters, and urban exploiters (McKinney, 2002). Urban avoiders are species that are sensitive to human activity. These are animals, such as large predators, that cannot survive once humans have displaced their food sources. Urban adapters are species that are quick to utilize changes to the environment due to humans. Finally, those species that are totally dependent on the presence of humans are classified as urban exploiters.

Pollution

Biodiversity loss due to air pollution is mainly attributed to three distinct categories: greenhouse gases, chemical imbalances, and aerosols. Today, societies demand more and more resources, services, and products that are readily met by companies and businesses all around the world. However, this competitive global market forces companies to make decisions based on cost effectiveness. In many cases, this leads to pollution or eco-unfriendly products. The sectors that contribute most to air pollution are transportation, energy production, agriculture, and industry. The other types of pollution that directly affects biodiversity are aquatic pollution and nutrient run off. The high toxic level chemicals, fertilizers and pesticides from agriculture and industries run off in to the rivers and oceans and disrupt the water

content and hence, the habitat of aquatic animals.

Lack of awareness about biodiversity

There is a general lack of awareness about the biodiversity crisis. Man is naturally inclined to disregard issues that are not directly present in his life. There are people that are largely unaware of the biodiversity crisis. This is often due to lack of education. In children, it may also be caused by a removal from nature that has accompanied the shift to a technology-dependent world. This removal may result from the emergence of a technology-dependent lifestyle. However, this issue extends beyond children. According to the Secretariat of the Convention of Biological Diversity (2011), only 35 percent of European Union citizens said that they actually knew what “biodiversity” meant. There are also those who understand the effects that biodiversity loss has on everyday life, but do not know what they can do to remedy the problem. Many members of society manage to convince themselves that they cannot make real changes. But, the issue of biodiversity loss is such that collections of small-scale efforts can have a real effect on mitigating the problem.

Short-coming of present policies

One key issue is that while some governments did pass laws to help halt the loss of biodiversity, they only did so sporadically. Furthermore, they only tried to solve a small issue instead of integrating all sectors of the economy to make global and all-inclusive policies. Biodiversity is a

large problem that needs to be dealt with in an integrated fashion. Some sectors that should be included are agriculture, fisheries, water usage and energy (Council of the European Union, 2011). Even when the policies were actually well written and had the potential to be effective, there was often a lack of regulation and enforcement, rendering them essentially ineffective. There is no over-arching body to regulate breeches in policies and impose sanctions on violators. As such, countries have not had any incentives to put their policies into effect. And, since there were no consequences, policies were not implemented to the extent were meant to. Furthermore, most countries put very little funding into environmental issues so resources are scarce. For example, in the European Union (EU), the budget for all nature conservation projects is 1 700 million €, which is less than 1 percent of the EU's annual budget (Spyropoulou et al., 2010).

Lastly, it is hard to come to an international agreement because each country is afraid of losing its sovereignty. Countries also often go into summits with completely different approaches to solving the problem. At the Nagoya Conference, for instance, wealthier countries were reticent to give financial aid to poorer countries to help them preserve valuable hotspots. Developing countries, on the other hand, demanded compensation from developed countries that made a profit from the biodiversity they are trying to preserve (e.g., by selling pharmaceuticals) (Watts, 2010; Black, 2010).

Some policies have technical problems as well and need to be re-evaluated altogether. Some fire laws in forest regions are inefficient and the fires provoked, whether or not they were intentional, can be damaging to entire ecosystems and may even kill entire species. For example, Phillip Island, in Australia, has hot, dry, and dusty weather and the current changing climate in this location has taken its toll on the *Eudyptula minor* penguin. Many of these rare creatures have been found dead, either near on in their burrows, killed by small forest fires, which they were unable to retreat from. This has altered their breeding cycles as variations in the numbers of birthing creatures can drastically change the entire ecosystem. In 2005, lightning started a very large fire that caused the death of many penguins and almost permanently destroyed the island's ecosystem (Australian Government, 2011a).

Another recurring problem is a lack of indicators to measure success. It is very hard to tell how efficient a policy is. This is even more problematic on the large scale where there is no common baseline or standardized indicators. Even in the European Union – which is designed for international cooperation and is relatively uniform in many ways – not all measurements are standardized. This results in useless data (Streamlining European Biodiversity Indicators, 2011). Additionally, in order for future assessments to be successful, it is necessary to set a quantitative goal upon defining a policy. This will let future policy

makers know how efficient an original policy was, so that they can make changes to make it more efficient.

Important things to keep in mind while doing research

- What does the government in your country feel about biodiversity as a crisis that needs to be addressed as soon as possible?
- What is your country doing to contribute to biodiversity loss?
- What common practices in your country are factors for the loss of biodiversity?
- Is your country trying in any way to put those practices to an end?
- If yes, in what ways is your country trying to mitigate those adverse effects?
- Has your country succeeded in mitigating the above mentioned effects?
- If it has, can those policies be implemented on an international level?
- What are the recent developments in your country about the issue at hand?

Committee Goals

- To conclude whether the conservation of biodiversity is worth the attention and capital.

- Should biodiversity be considered a global crisis

- To create a short term plan and/ or long term plan for the conservation of biodiversity by keeping in mind the factors that contribute to the biodiversity loss. Coming up with a plan for international cooperation that mitigates the effects of climate change, reduces pollution, creation of hot spots, and creating awareness about biodiversity issues.

- To think about factors that relate to loss of biodiversity such as excessive hunting, monoculture agriculture, genetically modified crops, deforestation, mining and logging and coming up with policies of making these practices feasible.

- To think about ways of measuring biodiversity so as to measure the effectiveness of the short term and/or long term plan.

- To think about the existing regulation bodies, think about their effectiveness and whether more committees should be formed to address the issue of biodiversity

- To think about ways of international collaboration specifically between the developed and developing world to address the issue at hand.

- To think about the funding, how much funds are required and where these funds will come from.

- To think about the formation of accountability systems that will ensure proper implementation of the policies.

Bloc Positions

North & South America

For more information, please refer to the Ecological Society of America:
<http://www.esa.org/>

European Union

European Commission on Biodiversity & nature.
http://ec.europa.eu/environment/nature/index_en.htm

Arab League

The Arab League is still new to accepting the issue of biodiversity as a serious problem. However, there have been recent efforts in trying to make the environment more sustainable. For more, information, check,
<http://biodiversity-l.iisd.org/news/arab-league-meeting-focuses-on-biodiversity-and-desertification-meas/>

African Union

For more information, please refer to “Africa Biodiversity Collaborative Group”.
<http://abcg.org/>

Asia

For more information, please refer to the ASEAN Centre for Biodiversity.
<http://www.aseanbiodiversity.org/>

Helpful Links

- Some general information on biodiversity
http://www.esa.org/education_diversity/pdfDocs/biodiversity.pdf
- UNEP- Biodiversity
<http://www.unep.org/themes/biodiversity/>
- Connecting the dots; biodiversity, adaptation, food security and livelihoods
<http://www.unep.org/delc/PDF/publicationconnectingdots.pdf>
- Technology Transfer and cooperation under the convention on biological diversity
<http://www.unep.org/dec/PDF/TechnicalTransferCBD.pdf>
- Convention on Biological Diversity
<http://www.cbd.int/>
- History of previous resolutions relating biodiversity in the UN General Assembly
<http://unbisnet.un.org:8080/ipac20/ipac.jsp?session=L3222D116P824.50962&menu=search&aspect=subtab124&npp=50&ipp=20&spp=20&profile=bib&ri=&index=.SW&term=Biodiversity&matchopt=0%7C0&oper=AND&x=11&y=12&aspect=subtab124&index=.TW&term=&matchopt=0%7C0&oper=AND&index=.TN&term=&matchopt=0%7C0&oper=AND&index=.AW&term=&matchopt=0%7C0&ultype=&uloper=%3D&ullimit=&ultype=&uloper=%3D&ullimit=&sort=>
- Strategic Plan for Biodiversity 2011-2020
<http://www.cbd.int/decision/cop/?id=12268>

- Biodiversity in Africa
<http://frameweb.org/CommunityBrowser.aspx?id=114&lang=en-US>
- Climate Change and animal adaptation
<http://www.sciencedaily.com/releases/2011/09/110929074203.htm>

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- Watts, J. (2010, 25 October). Nagoya biodiversity summit is showing depressing parallels with Copenhagen. *The Guardian*,
- Australian Government. (2011a). Department of climate change and energy efficiency. Retrieved 11/16, 2011, from <http://www.climatechange.gov.au/>
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TOPIC 2:

REVIEWING AND PROMOTING THE KYOTO PROTOCOL WITH SPECIAL REFERENCE TO INCREASING THE SUSTAINABILITY AND EFFICIENCY OF ENERGY PROJECTS

Introduction

The Kyoto Protocol is generally seen as an important first step towards a truly global emission reduction regime that will stabilize GHG emissions, and provide the essential architecture for any future international agreement on climate change.

By the end of the first commitment period of the Kyoto Protocol in 2012, a new international framework needs to have been negotiated and ratified that can deliver the stringent emission reductions the Intergovernmental Panel on Climate Change (IPCC) has clearly indicated are needed.

A consensus must be developed on the new and improved methods for the reduction of greenhouse gases with special reference to how current and future energy projects align with the previous protocol's goals. This is to occur on both small scale within national communities and large scale in international structures, taking into account the current international economic status and especially the accelerating need for energy

production in developing nations and sustainability management for future emission targets.

Key points to think about

- The review the status of the current energy projects and adherence/ability to accurately measure emission levels
- Should there be a larger focus on sustainability projects in the future?
- How largely is your country committed to renewable initiatives? Have they changed their stance on the Kyoto Protocol since the Copenhagen conference?
- Reviewing of the quotas of greenhouse emissions, and possibilities of a carbon tax for large emissions or other adherence incentives
- Assessment of previous accountability methods
- Small scale energy projects within national legislation
- Large scale projects implementation (international cooperation) and history of importance between sustainability and economic means

Background

Almost two decades ago, countries joined an international treaty, the United Nations Framework Convention on Climate Change, to cooperatively consider what they could do to limit average global temperature increases and the resulting climate change, and to cope with whatever impacts were, by then, inevitable. This was in 1992.

By 1995, countries realized that emission reductions provisions in the Convention were inadequate. They launched negotiations to strengthen the global response to climate change, and, two years later, adopted the Kyoto Protocol. The Kyoto Protocol legally binds developed countries to emission reduction targets. The Protocol's first commitment period started in 2008 and ends in 2012. The UNFCCC Secretariat supports all institutions involved in the international climate change negotiations, particularly the Conference of the Parties (COP), the subsidiary bodies (which advise the COP), and the COP Bureau (which deals mainly with procedural and organizational issues arising from the COP and also has technical functions).

What happens beyond 2012 is one of the key issues governments of the 195 Parties to the Convention are currently negotiating. Climate change is a complex problem, which, although environmental in nature, has consequences for all spheres of existence on our planet. It either impacts on -- or is impacted by -- global issues, including poverty, economic development, population growth, sustainable development and resource management. It is not surprising, then, that solutions come from all disciplines and fields of research and development.

At the very heart of the response to climate change, however, lies the need to reduce emissions. In 2010, governments agreed that emissions need to be reduced so that global temperature increases are limited to below 2 degrees Celsius.

Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities." "The door is closing," said Fatih Birol, chief economist at the International Energy Agency (IEA). "I am very worried – if we don't change direction now on how we use energy, we will end up beyond what scientists tell us is the minimum for safety. The door will be closed forever."

If current trends continue, and we go on building a high-carbon energy infrastructure, by 2015 at least 90% of the available carbon budget needed to prevent the temperature from rising above 2°C will be swallowed up. By 2017, there will be no more room for maneuver, since the whole carbon budget will be spoken for, according to IEA calculations.

The United Nations Environment Programme is most interested in the solving the question of the gap between the 2020 emission levels expected as a result of the current pledges and the emission levels that would be consistent with either a 2° C or 1.5° C limit. A UNEP Emissions Gap Report was created last year and the COP 17 UN Climate Change Conference, the 17th UN conference of its kind, was held recently to address this.

Mechanisms under Kyoto Protocol

Flexible mechanisms, also sometimes known as Flexibility Mechanisms or Kyoto Mechanisms, refers to Emissions Trading, the Clean Development Mechanism and Joint Implementation. These are mechanisms defined under the Kyoto Protocol intended to lower the overall costs of achieving its emissions targets. These mechanisms enable parties to achieve emission reductions or to remove carbon from the atmosphere cost-effectively in other countries. While the cost of limiting emissions varies considerably from region to region, the benefit for the atmosphere is in principle the same, wherever the action is taken.

The Emissions Trading-mechanism allows parties to the Kyoto Protocol to buy greenhouse gas emission permits from other countries to help meet their domestic emission reduction targets. Through the Joint Implementation, industrialized countries with a greenhouse gas reduction commitment of Annex 1 countries may fund emission reducing projects in other industrialized countries as an alternative to emission reductions in their own countries. Typically, these projects occur in countries in the former Eastern Europe.

The Clean Development Mechanism (CDM) is an arrangement under the Kyoto Protocol allowing industrialized countries with a greenhouse gas reduction commitment of Annex 1 countries to invest in projects that reduce emissions in developing countries as an alternative to

more expensive emission reductions in their own or other industrialized countries. The most important factor of a carbon project is that it establishes that it would not have occurred without the additional incentive provided by emission reductions credits. The CDM allows net global greenhouse gas emissions to be reduced at a much lower global cost by financing emissions reduction projects in developing countries where costs are lower than in industrialized countries.

Between 2001, which was the first year Clean Development Mechanism (CDM) projects could be registered, and 2012, the end of the Kyoto commitment period, the CDM is expected to produce some 1.5 billion tons of carbon dioxide equivalent (CO₂) in emission reductions.[17] Most of these reductions are through renewable energy, energy efficiency, and fuel switching. By 2012, the largest potential for production of Certified Emission Reductions (CERs) are estimated in China (52% of total CERs) and India (16%). CERs produced in Latin America and the Caribbean make up 15% of the potential total, with Brazil as the largest producer in the region (7%).

Emission reduction is not only important for global environment health, but for improving lives as well. Access to energy is a problem that affects primarily the poor, usually in developing regions. But environmental damage also tends to disproportionately affect the poor in society. In industrialized urban areas, the poor tend to live closest to pollution-producing factories and highways. In rural areas, the poor are most likely to be

exposed to indoor air pollution from traditional fuels such as fuel wood. They are also more vulnerable to soil and water pollution because they often depend on agriculture.

The Kyoto Protocol, like the Convention, is also designed to assist countries in adapting to the adverse effects of climate change. It facilitates the development and deployment of techniques that can help increase resilience to the impacts of climate change.

The Adaptation Fund was established to finance adaptation projects and programs in developing countries that are Parties to the Kyoto Protocol. The Fund is financed mainly with a share of proceeds from CDM project activities.

Top-ten Carbon Dioxide Emitters

China – 17%, 5.8
 United States – 16%, 24.1
 European Union – 11%, 10.6
 Indonesia – 6%, 12.9
 India – 5%, 2.1
 Russia – 5%, 14.9
 Brazil – 4%, 10.0
 Japan – 3%, 10.6
 Canada – 2%, 23.2
 Mexico – 2%, 6.4

Notes

- These values are for the GHG emissions from fossil fuel use and cement production. Calculations are for carbon dioxide (CO₂), methane (CH₄), nitrous oxide

(N₂O), and gases containing fluorine (the F-gases HFCs, PFCs and SF₆).

- These estimates are subject to large uncertainties regarding CO₂ emissions from deforestation; and the per country emissions of other GHGs (e.g., methane). There are also other large uncertainties which mean that small differences between countries are not significant. CO₂ emissions from the decay of remaining biomass after biomass burning/deforestation are not included.
- Excludes underground fires.
- Includes an estimate of 2000 million tonnes CO₂ from peat fires and decomposition of peat soils after draining. However, the uncertainty range is very large.

Current state

The Kyoto Protocol is generally seen as an important first step towards a truly global emission reduction regime that will stabilize GHG emissions, and provides the essential architecture for any future international agreement on climate change. By the end of the first commitment period of the Kyoto Protocol in 2012, a new international framework needs to have been negotiated and ratified that can deliver the stringent emission reductions the Intergovernmental Panel on Climate Change (IPCC) has clearly indicated are needed.

Committee Goals

- Develop framework to alleviate that which is not working and plans for further reduction and sustainability mechanisms, in accordance with the clean development mechanism and article 2 of the Kyoto Protocol
- Determine realistic reduction goals and balancing the contribution of those goals from developed nations along with commitments of developing nations
- Examine effectiveness of the Adaptation fund and reduction and benefits from the Clean Development Mechanism for energy projects in all nations and suggest improvements to the language, enforcement, and oversight
- Establish certain energy projects and programs that could be implemented drawing from the reduction goals and the Kyoto Protocol (solar, hydropower, tidal, wind power, biomass, nuclear, clean tech, energy efficiency research, etc.)
- Discuss ways to improve measurement of emissions, especially from concrete sources such as energy production and energy use in connection with manufacturing
- Draft new protocol commitments and reductions for a period after 2012

Questions to keep in mind while doing research.

- Is your country considered developing? Did your country ratify the Kyoto Protocol? Why or why not? Have they changed their position since the Copenhagen conference?
- Does the country have measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases? Are there current plans to do so?
- What R&D and/or financial incentives are given for promoting energy efficiency, sustainable projects and fuel switching? What more can be done?
- What are the reduction requirements of the country? How has that country progressed in reducing emissions by utilizing renewable energy, energy efficiency, fuel switching, and partnerships or cooperation with other nations?

Country and Region Blocs:

European Union

Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety
<http://www.bmu.de/english/aktuell/4152.php>

UN Framework Convention on Climate Change Europe
http://unfccc.int/essential_background/the_scienc

ce/climate_change_impacts_map/items/6228.php

Latin America

UN Framework Convention on Climate Change Latin America
http://unfccc.int/essential_background/the_science/climate_change_impacts_map/items/6229.php

North America

UN Framework Convention on Climate Change North America
http://unfccc.int/essential_background/the_science/climate_change_impacts_map/items/6230.php

Africa

UN Framework Convention on Climate Change Africa
http://unfccc.int/essential_background/the_science/climate_change_impacts_map/items/6224.php

Asia

UN Framework Convention on Climate Change Asia
http://unfccc.int/essential_background/the_science/climate_change_impacts_map/items/6225.php

Small Islands

UN Framework Convention on Climate Change Small Islands
http://unfccc.int/essential_background/the_science/climate_change_impacts_map/items/6232.php

Australia and New Zealand

UN Framework Convention on Climate Change Australia and New Zealand
http://unfccc.int/essential_background/the_science/climate_change_impacts_map/items/6226.php

Helpful Links on Kyoto-protocol and Energy Policy

United States
<http://www.usembassy.at/en/download/pdf/kyoto.pdf>

Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (Energy)
http://www.bmu.de/english/climate_energy/doc/41327.php

United Nation. (1997). Kyoto Protocol to the United Nations Framework Convention on Climate Change
<http://unfccc.int/resource/docs/convkp/kpeng.pdf>

Nuclear energy and the Kyoto-protocol
<http://www.oecd-neo.org/ndd/reports/2002/nea3808-kyoto.pdf>

The Kyoto Protocol Summary - A Quick Guide To Understanding It
<http://www.alternate-energy-sources.com/Kyoto-Protocol-summary.html>

Strategy for Post 2012 Kyoto-protocol Agreement
<http://unfccc.int/resource/docs/2009/smsn/ngo/169.pdf>

Renewable Energy Technologies and Kyoto Protocol Mechanisms

http://www.eurosfair.pr.fr/sustdev/documents/pdf/Renewable_Energy_kyoto-mechanisms_en.pdf

Previous UN resolutions on Kyoto Protocol:

<http://unbisnet.un.org:8080/ipac20/ipac.jsp?session=1I22718107VV4.67125&menu=search&aspect=subtab124&npp=50&ipp=20&spp=20&profile=bib&ri=&index=.SW&term=kyoto+protocol&matchopt=0%7C0&oper=AND&x=14&y=10&aspect=subtab124&index=.TW&term=&matchopt=0%7C0&oper=AND&index=.TN&term=&matchopt=0%7C0&oper=AND&index=.AW&term=&matchopt=0%7C0&ultype=&uloper=%3D&ullimit=&sor t=>

Results of COP 17 in Durban, South Africa November - December 2011

<http://unfccc.int/2860.php>

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United Nation. (1997). Kyoto Protocol to the United Nations Framework Convention on Climate Change
<http://unfccc.int/resource/docs/convkp/kepeng.pdf>

UN Framework Convention on Climate Change
http://unfccc.int/essential_background/items/6031.php

Kyoto Protocol and government action
http://en.wikipedia.org/wiki/Kyoto_Protocol_and_government_action

Renewable Energy and Kyoto Protocol: Adoption in Malaysia
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