Montana Model UN
High School Conference

General Assembly Plenary Topic Background Guide
Topic 1: Adjusting to Climate Change[1]

14 October 2013

When UN Secretary-General Ban Ki-moon took office in January 2007, he began to call attention to the implications of climate change. For example, in March 2007, he argued that climate change has the same importance as war:

> Today, war continues to threaten countless men, women and children across the globe. It is the source of untold suffering and loss. And the majority of the UN's work still focuses on preventing and ending conflict. But the danger posed by war to all of humanity – and to our planet – is at least matched by the climate crisis and global warming.

According to Secretary Ban, climate change is "likely to become a major driver of war and conflict" as natural disasters, rising ocean levels, droughts, land degradation and other effects of climate change lead to job loss, poverty, decreasing agricultural yields, the spread of disease, and mass migration.[2]

Since the release of the fourth assessment of the Intergovernmental Panel on Climate Change (IPCC) in 2007 and with the release of a fifth assessment in 2013, climate change has become more widely understood. Scientists worldwide agree that it is happening, that it is primarily anthropogenic (caused by humans), and that it is overwhelmingly the effect of greenhouse gas (GHG) emissions, caused by the burning of fossil fuels such as coal, petroleum, and natural gas for energy. Moreover, there is a strong scientific consensus that the effects of climate change are already apparent in changing and more severe weather patterns and that the long-range effects are likely to include melting glaciers and polar ice caps, rising sea levels, and increasing desertification.

Today, the question is how will individuals, states, and international organizations adapt to climate change? Part of the challenge is to reduce GHG emissions. But that is not enough. Even if states curb their emissions, past emissions will continue to warm the earth for years.[3] Thus states must start now to adapt to climate change. This will require unprecedented international cooperation and a rethinking of social and economic life, including where people live and what they eat. In addition, it may require revisions to the Millennium Development Goals.

History and Current Events

Today's consensus about the phenomenon of climate change took over a century to form. In 1896, a scientist noted that carbon dioxide levels were increasing in the Earth's atmosphere.[4] In 1931, an American physicist named E.O. Hulbert published a paper linking rising carbon dioxide levels with rising temperatures. According to Hulbert, when humans release carbon dioxide and other greenhouse gases into the atmosphere, the

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[1] This background guide was written by Karen Adams, Montana Model UN Faculty Advisor and Kedra Hildebrand with contributions from David Knobel (2009) and Nicholas Potratz (2013).

[2] UN News Centre, "Ban Ki-moon calls on new generation to take better care of Planet Earth than his own," March 1, 2007, available at http://www.un.org/apps/news/story.asp?NewsID=21720&Cr=global&Cr1=warming

[3] Intergovernmental Panel on Climate Change (IPCC), "Long-term Climate Change: Projections, Commitments and Irreversibility," *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 20 September 2013, p. 88, available at http://www.climatechange2013.org/images/uploads/WGIAR5_WGI-12Doc2b_FinalDraft_Chapter12.pdf

[4] Ginger L. Gist, "Global Climate Change: Components and Consequences," *Journal of Environmental Health*, 61:5 (December 1999), p. 4.

Earth is warmed because the sun's rays are reflected back to Earth by the gases. In 1951, however, the American Meteorological Society's *Compendium of Meteorology* contended that an increase in carbon dioxide would not increase the Earth's temperature.[5]

Climate change did not receive sustained international attention until the 1980s.[6] In 1988, in response to growing scientific evidence of global warming, the UN Environmental Programme (UNEP) created the Intergovernmental Panel on Climate Change (IPCC). In the early 1990s, the IPCC issued its first report, which demonstrated that the earth's temperature had risen 0.5 degrees Celsius in the previous half century.[7]

In its most recent (2013) report, IPCC Working Group 1 (physical science) presented further evidence that climate change is primarily the result of human GHG emissions. "Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system." Scientists have increased their confidence that humans have caused climate change, saying that it is "extremely likely."[8]

According to the IPCC, when humans burn fossil fuels for energy, they release methane, nitrous oxide, and carbon dioxide (CO_2) into the atmosphere. Concentrations of carbon dioxide, methane, and nitrous oxide in the atmosphere have all increased since 1750 due to human activity. CO_2 alone has increased by 40% since pre-industrial times.[9] This increase creates a "greenhouse effect" that causes temperatures to rise, makes weather patterns more severe, and raises sea levels. According to the IPCC, fossil fuel combustion and cement manufacturing account for around 91% of human-caused CO_2 emissions. Land use change (mostly deforestation) is responsible for the remaining 9%.[10] According to the US Department of Energy (DOE), coal and petroleum are each responsible for about 40 percent of CO_2 emissions, with natural gas responsible for another 20 percent.[11]

In its 2007 report, the IPCC documented the effects climate change has already had worldwide, including:

-- Warming lakes and rivers, which reduces water quality and increases the likelihood of floods.
-- Reducing growing seasons in dry climates, such as the Sahelian region of Africa.
-- Changing ranges of plant and animal species, which affects agricultural production.[12]

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[5] Janet Conley, "Timeline: A Science is Born," *Daily Report*, September 17, 2007, available at http://www.dailyreportonline.com/PubArticleDRO.jsp?id=1202552213600&Timeline_A_science_is_born&slreturn=20130830232204

[6] Karen Mingst and Margaret Karns, *The United Nations in the 21st Century*, 3rd edition, (Boulder: Westview, 2007), p. 215.

[7] Conley, "Timeline: A Science is Born." The full report is available at http://www.ipcc.ch/ipccreports/assessments-reports.htm

[8] Intergovernmental Panel on Climate Change (IPCC), "12th Session of Working Group 1: Approved Summary for Policy Makers," 27 September 2013, available at http://www.climatechange2013.org/images/uploads/WGIAR5-SPM_Approved27Sep2013.pdf.

[9] IPCC, "12th Session of Working Group 1."

[10] Intergovernmental Panel on Climate Change (IPCC), "Carbon and Other Biogeochemical Cycles" chapter 6 in *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013, p. 131, available at http://www.climatechange2013.org/images/uploads/WGIAR5_WGI-12Doc2b_FinalDraft_Chapter06.pdf

[11] US Department of Energy, *International Energy Outlook 2013*, 25 July 2013, available at http://www.eia.doe.gov/oiaf/ieo/emissions.html

[12] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, 2007, pp.

In addition, the IPCC discussed the likely future impacts of climate change, which include:

-- Increased glacial melting and run-off in high latitudes, which will reduce the availability of drinking water in parts of the world inhabited by one-sixth of the world's population.
-- Increased incidence of drought and spread of desertification.
-- Frequent heavy precipitation events, causing floods.
-- Extinction of plant and animal species, with effects on human food supply.
-- Rising sea levels, causing coastal erosion and necessitating resettlement of urban populations.

Climate change will affect all of the countries and regions of the world, both directly by the changes listed above and indirectly by the disruptions in other parts of the world. The industries, cities, and countries that climate change will most directly affect are

> generally those in coastal and river flood plains, those whose economies are closely linked with climate-sensitive resources, and those in areas prone to extreme weather events, especially where rapid urbanisation is occurring. … Poor communities can be especially vulnerable, in particular those concentrated in high-risk areas. They tend to have more limited adaptive capacities, and are more dependent on climate-sensitive resources such as local water and food supplies.[13]

According to a recent study in *Environment and Urbanization*, two-thirds of the world's largest cities are in coastal areas. Moreover,

> 180 countries have populations in low-elevation coastal zones, and about 70 percent of those have urban areas of more than 5 million people that are under threat. Among them: Tokyo; New York; Mumbai, India; Shanghai, China; Jakarta, Indonesia; and Dhaka, Bangladesh. [14]

If the 634 million people who reside threatened coastal areas relocate, they will move to other parts of the world. Because rising sea levels will affect many cities \simultaneously, the disruption is likely to be far greater than the effects of a severe storm in one city, such as when Hurricane Katrina hit New Orleans. The impacts of rising seas on coastal areas will not happen immediately. Thus, states can prepare for and carry out systematic resettlements that would be impossible after sudden storms. Nevertheless, it will be difficult to encourage people to move, provide them with shelter, provide them with services such as education and health care, and help them feel welcome in new places.

Ecological and economic interdependence will also magnify the effects of climate change in areas that are less directly affected. As the IPCC explains, "climate change impacts spread from directly impacted areas and sectors to other areas and sectors through extensive and complex linkages."[15] Birds provide a good example of this; as bird populations decline and their migration patterns change, farmers who would otherwise not experience the negative effects of climate change will not be able to rely on birds to pollinate their crops.

Health is another area of vulnerability and interdependence. According to the IPCC, climate change will affect the health of millions of people, especially those with low adaptive capabilities such as children, the elderly, and people living in less-developed countries. Among the anticipated effects are increased malnutrition, storm-

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http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg2_report_impacts_adaptation_and_vulnerability.htm /

[13] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, pp. 11-12.

[14] Thomas Wagner, "Cities at Risk of Rising Sea Levels," Associated Press, 27 March 2007, available at http://www.washingtonpost.com/wp-dyn/content/article/2007/03/27/AR2007032701871.html

[15] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, p. 12.

related deaths (including deaths from heatwaves), diarrhea (due to water poor quality), asthma and other respiratory diseases (due to poor air quality), and changing patterns of infectious diseases such as influenza.[16]

Given the already-occurring and likely effects of climate change -- as well as their possible political repercussions, such as war -- the IPCC and other international bodies have begun to consider what changes humans can make to (1) reduce GHG emissions to reduce climate change and diminish these effects and (2) adapt to climate change to reduce suffering, dislocation, and conflict as much as possible.

Reducing GHG Emissions

According to the IPCC, "past emissions are estimated to involve some unavoidable warming …even if atmospheric greenhouse gas concentrations remain at 2000 levels. [Thus t]here are some impacts for which adaptation is the only available and appropriate response."[17] Nevertheless, it would be helpful for future generations to reduce GHG emissions as much as possible. UN member states have been trying to do so since 1992 and are currently involved in talks on this issue.

In 1992, the General Assembly (GA) convened a World Summit in Rio de Janeiro, Brazil. At the conference, known as the Earth Summit, 154 UN member states signed the Framework Convention on Climate Change (FCCC). Parties to the FCCC agreed to

> [stabilize] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic [man-made] interference with the climate system. Such a level should be achieved 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.[18]

Specifically, FCCC signatories agreed to monitor and reduce their greenhouse emissions, and to cooperate to share information about and technology to address climate change. In addition, developed states pledged to "aim to" reduce their greenhouse emissions, especially carbon dioxide, "with the aim of returning individually jointly to their 1990 levels." Furthermore, the most developed states agreed to provide financial assistance to help less developed states reduce their emissions.[19]

The rationale for expecting different levels of commitment from states at different levels of development was that "economic and social development and poverty eradication are the first overriding priorities of the developing country Parties," and therefore, they could not be expected to fulfill the FCCC requirements without help from developed countries.[20] Moreover, historically the US and other developed countries have been the largest emitters of greenhouse gasses (GHG). In 2000, the US was responsible for 20 percent of all GHG emissions, while the 25 European Union states were responsible for 14 percent. China's emissions have grown over the past decade, as it has developed and used more electricity, which it produces primarily by burning coal. In 2000, China contributed 15 percent of GHGs. The other top-five emitters were Russia and India, each with 6 percent of the world total. Together, just 25 countries accounted for 83 percent of global emissions.[21]

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[16] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, p. 12.

[17] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, p. 19.

[18] "United Nations Framework Convention on Climate Change," Article 2, available at http://unfccc.int/resource/docs/convkp/conveng.pdf

[19] United Nations Framework Convention on Climate Change," Article 4.

[20] United Nations Framework Convention on Climate Change," Article 4.

[21] Kevin A. Baumert, et al., "Navigating the Numbers: Greenhouse Gas Data and International Climate Policy," World Resources Institute, 2005, p. 10, available at http://pdf.wri.org/navigating_numbers.pdf

As of 2013, China is the largest absolute emitter of GHGs, representing 23% of GHG emissions. Developed countries still have some of the highest emissions: the United States emits 19% of the world's greenhouse gases, and countries in the EU emit 13% combined.[22] Developed country emissions are much higher per capita than the emissions of developing countries. For example, in 2010, the US emitted 17.6 metric tons of CO_2 per person, compared to China's 6.2.[23]

The FCCC entered into force on March 21, 1994. As of 2013, the FCCC has 195 ratifications, including the US and the EU as a regional organization.[24] The nearly universal ratification is not, however, a good indicator of state commitment to the FCCC, which is vague and non-binding.

In 1997, some FCCC parties negotiated and signed the Kyoto Protocol to the FCCC, a binding agreement. This is the most comprehensive agreement regarding GHG emissions to date. States that ratify the Protocol agreed to adopt national GHG emission targets. Specifically, developed states promised to reduce emissions to 95 percent of 1990 levels by 2012.[25] As of 2013, 192 states have ratified the Protocol.[26] Among the states that have not ratified the Kyoto Protocol is the US, which objected to its application to only developed states.[27]

According to the IPCC, in some sectors and in certain countries, the FCCC and Kyoto Protocol have stimulated national policies that have been effective in reducing GHG emissions, but "the scale of such measures…has not yet been large enough to counteract the global growth in emissions." As a result,

> With current climate change mitigation policies and related sustainable development practices, global GHG emissions will continue to grow over the next few decades… CO_2 emissions between 2000 and 2030 from energy use are projected to grow 40 to 110 percent.[28]

In addition to failing to meet Kyoto's targets for their 2012 emissions, developed countries have been unable to agree with developing countries about what targets all countries should meet. Instead, in December 2012, at the UN Climate Change Conference in Doha, Qatar, the FCCC simply extended the Kyoto targets for developed countries from 2013 to 2020 and agreed to establish, by 2015, new targets for all countries after 2020.[29] In November 2013, the post-2015 targets will be discussed at the annual FCCC conference in Warsaw.[30]

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[22] United States Environmental Protection Agency, "Global Greenhouse Gas Emissions Data," 9 September 2013, available at http://www.epa.gov/climatechange/ghgemissions/global.html

[23] World Bank, "CO2 Emissions (Metric Tons Per Capita)," available at http://data.worldbank.org/indicator/EN.ATM.CO2E.PC, accessed 29 September 2013.

[24] United Nations Framework Convention on Climate Change, "Status of Ratification,", available at http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php, accessed 27 September 2013.

[25] "Kyoto Protocol to the United Nations Framework Convention on Climate Change," 1998, Article 3 and Article 6, available at http://unfccc.int/resource/docs/convkp/kpeng.pdf

[26] United Nations Framework Convention on Climate Change, "Status of Ratification of the Kyoto Protocol," available at http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php, accessed 28 September 2013.

[27] George W. Bush, "Text of a Letter from the President to Senators Hagel, Helms, Craig, and Roberts," White House News Release, March 13, 2001, available at http://www.whitehouse.gov/news/releases/2001/03/20010314.html

[28] IPCC, "Summary for Policymakers, *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, 2007, pp. 3, 4, 21, available at http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-spm.pdf

[29] John Broder, "Climate Talks Yield Commitment to Ambitious, but Unclear, Actions," *New York Times*, 8 December 2012; [newspaper online]; available at http://www.nytimes.com/2012/12/09/science/earth/talks-on-climate-produce-promises-and-complaints.html?ref=kyotoprotocol.

In 2012, the FCCC also agreed to raise $100 billion dollars in aid by 2020 to help developing countries deal with the effects of climate change. Only a few developed states have made commitments or contributions to the fund.[31] Aid is necessary because developing countries have "made it clear that they will not sign a treaty unless they get money to help them adapt to a warmer planet." The cost of making needed changes is steep -- at least $1 billion and as much as $1 trillion per year.[32]

Adapting to Climate Change

There are two types of responses to climate change: reactive and preventative. Reactive measures respond to the disasters spawned by climate change. For example, in September 2008, the UN "appealed for nearly $108 million for an estimated 800,000 people in Haiti in need of humanitarian aid, to deal with a series of devastating tropical storms and hurricanes."[33] The UN's work to negotiate and implement the FCCC and Kyoto Protocol, discussed above, are examples of preventative measures. Despite international efforts such as these, states will need to take preventative measures at the national level as well.

Since the planet will continue to warm even if states reduce GHG emissions, countries should begin preparing for the effects of climate change now. According to the IPCC, "adaptation alone is not expected to cope with all the projected effects of climate change, and especially not over the long term as most impacts increase in magnitude."[34] Still, effective adaptation would reduce the effects as much as possible.

According to the IPCC, "the array of potential adaptive responses available to human societies is very large, ranging from purely technological (e.g., sea defences), through behavioural (e.g., altered food and recreational choices), to managerial (e.g., altered farm practices) and to policy (e.g., planning regulations)."[35] In a 2012 report, the IPCC suggested several practices for adapting to climate change, including:

> (1) Building a culture of safety, which means that states educate their citizens on climate change and how it will affect their people, as well as creating early warning systems and channels for such systems to reach the public.
>
> (2) Reducing climate-related disaster risk by ensuring that states take measures like protecting ecosystems, ensuring safe infrastructure and building codes, and reducing vulnerabilities through development and poverty reduction.
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> (3) Transferring and sharing risk, via methods like establishing insurance programs for buildings, property, and crops.
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> (4) Managing the impacts of climate change, such as creating mechanisms to respond to disasters.[36]

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[30] United Nations Framework Convention on Climate Change, "Warsaw Climate Change Conference – November 2013," available at http://unfccc.int/meetings/warsaw_nov_2013/meeting/7649.php, accessed 25 July 2013.

[31] Broder, "Climate Talks Yield Commitment."

[32] Elisabeth Rosenthal, "Biggest Obstacle to Global Climate Deal May Be How to Pay for It," *New York Times*, 14 October 2009, http://www.nytimes.com/2009/10/15/science/earth/15climate.html

[33] "UN seeks almost $108 million for Haiti floods," *USA Today*, September 11, 2008.

[34] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, p. 19.

[35] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, p. 19.

[36] IPCC, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (Cambridge: Cambridge University Press, 2012), pp. 362-75; available at http://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf

Some states have already begun to adapt. For instance, as the IPCC notes:

> [C]limate change is considered in the design of infrastructure projects such as coastal defence in the Maldives and The Netherlands, and the Confederation Bridge in Canada. Other examples include prevention of glacial lake outburst flooding in Nepal, and policies and strategies such as water management in Australia and government responses to heatwaves in, for example, some European countries.[37]

Denmark has become a leader in creating innovated climate change technology that reduces countries' dependencies on fossil fuels.[38] Sweden has issued new dietary guidelines that consider both the nutrition content of food and its carbon footprint; according to Swedish researchers, "25 percent of the emissions produced by people in industrialized nations can be traced to the food they eat."[39] In 2008, the president of Kiribati said that within sixty years his country might no longer exist, "and that Kiribati's population of 900,000 may have to move earlier than within the 60 year timeframe in order to survive."[40]

According to the IPCC, how countries adapt will depend on factors "that directly shape the health of populations such as education, health care, public health initiatives and infrastructure and economic development." Thus less-developed countries will have the hardest time adapting and will, therefore, experience the most profound effects on human life and health. In fact, climate change is likely to delay or even reverse their development. According to the IPCC, "over the next half-century, climate change could impede achievement of the MDGs." [41] This, in turn, would reduce less-developed countries' ability to adapt to further climate change and increase the pressures on developed countries to help refugees and resolve resource conflicts.

According to the IPCC, "there are formidable environmental, economic, informational, social, attitudinal and behavioural barriers to the implementation of adaptation." These barriers are very similar to the barriers that have made it difficult to attain the MDGs. In addition, there is the problem of incorporating current scientific knowledge about climate change into existing ideas of sustainable development. "[F]ew plans for promoting sustainability have explicitly included either adapting to climate change impacts, or promoting adaptive capacity." [42]

As the 2015 deadlines for the MDGs approach, UN member states have begun to call for and negotiate new development goals. Some leaders, such as Jose Maria Pereira Neves, Prime Minister of Cape Verde, have suggested that climate change take a central role on any post-2015 development goals. According to Neves, it will be difficutl to meet goals like eradicating hunger if states do not adapt to climate change.[43]

Previous Committee Work on This Topic

Each year, the General Assembly holds a high-level plenary meeting attended by heads of state. In 2007, for the first time, the GA devoted a plenary session to climate change. Before the meeting, General Assembly

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[37] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, p. 19.

[38] Ministry of Foreign Affairs Denmark, "Danish Cleantech Solutions – driving export and attracting foreign investments," available at http://en.cop15.dk/denmark's+efforts/danish+cleantech+solutions

[39] Elisabeth Rosenthal, "To Cut Global Warming, Swedes Study Their Plates," *New York Times*, 22 October 2009, available at http://www.nytimes.com/2009/10/23/world/europe/23degrees.html

[40] Henk Luf, "Global Warming- Small island nations to disappear within years," *Cheers Magazine*, June 18, 2008.

[41] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, pp. 12, 20.

[42] IPCC, "Summary for Policy Makers," *Climate Change 2007: Impacts, Adaptation and Vulnerability*, pp. 19-20.

[43] UN News Centre, "Government leaders at UN Assembly debate urge ambitious, targeted post-2015 development agenda," 28 September 2013, available at http://www.un.org/apps/news/story.asp?NewsID=46128&Cr=sustainable+development&Cr1=#.UkhqIT-2ZWU

President Sheika Haya Rashed Al Khalifa said, "[w]e will need political action if we are to protect our environment, secure our planet and safeguard our future for our children and generations to come. This is one of the greatest challenges of our time."[44] In accordance with the IPCC report, Al Khalifa called for climate change to no longer be considered strictly an environmental issue, but rather a matter of sustainable development.[45]

In July 2008, the GA held an informal meeting on "Climate Change and the Most Vulnerable Countries – the Imperative to Act." At this meeting, GA President d'Escoto Brackmann, underscored that climate change is "inherently a sustainable development issue."[46] The President went on to stress that not enough is being done to assist the most vulnerable countries including the least developed countries (LDCs), landlocked developing countries (LLDCs) and small island states (SIDS). Furthermore, he called on developing countries to do their part by curbing emissions, creating mechanisms for technology transfer to developing states, and providing sufficient resources for effective climate funding. Much of the discussion in the informal meeting called on developed countries to aid those countries most effected by climate change and least able to act.

In April 2009, the GA proclaimed April 22 Mother Earth Day. Bolivian President Evo Morales Ayma brought the resolution to the Assembly , and applauded the members of the world body for taking a common stand for 'Mother Earth,' by acknowledging humanity's common interest in the protection of the planet and its environment."[47]

In June 2009, the GA unanimously adopted Resolution 63/281, "Climate change and its possible security implications." In the resolution, the GA expressed concern about the possible security implications of climate change, especially for the developing world, and asked Secretary-General Ban to submit to the upcoming session a comprehensive report on those implications. The GA also "invited the major organs of the United Nations, including the Security Council, to intensify their efforts to address the challenge, as appropriate and within their respective mandates."[48]

In December 2012, the GA adopted Resolution 67/210, "Protection of global climate for present and future generations of humankind." The resolution raised concern over the effects of climate change and the continued rise of GHG, and called for states to agree to legally binding instrument to reduce GHG, such as a second commitment period for the Kyoto Protocol.[49]

In May 2013, the GA held a thematic debate entitled "Sustainable Development and Climate Change: Practical Solutions in the Energy-Water Nexus." During the debate, states recognized the importance of water and energy in meeting future development goals, such as food security. The panel recognized that climate change will put greater stress on meeting development goals, specifically as it brings greater challenges for meeting energy and water needs in developing states. In addition, it emphasized the importance of including climate change in future

[44] UN News Centre, "In first plenary on climate change, General Assembly to seek speedy action," 30 July 2007, available at http://www.un.org/apps/news/story.asp?NewsID=23364&Cr=climate&Cr1=change

[45] UN General Assembly, "Addressing Climate Change: The United Nations and the World at Work," February 2008, p. 4, available at http://www.un.org/ga/president/62/ThematicDebates/statements/CCsummaryFINAL.pdf

[46] UN General Assembly, "Climate Change and the Most Vulnerable Countries – the Imperative to Act: Summary," 8 July 2008, available at http://www.un.org/ga/president/62/letters/ccactsummary210708.pdf

[47] UN General Assembly, "General Assembly Proclaims 22 April, 'International Mother Earth Day,'" GA/10823, April 22, 2009, available at http://www.un.org/News/Press/docs/2009/ga10823.doc.htm

[48] UN General Assembly, "General Assembly, Expressing Deep Concern, Invites Major United Nations Organs to Intensify Efforts in Addressing Security Implications of Climate Change," GA/10830, June 3, 2009, available at http://www.un.org/News/Press/docs/2009/ga10830.doc.htm

[49] UN General Assembly Resolution 67/201 (2012), available at http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/67/210.

development goals, and affirmed the need for a new legally binding climate change agreement that states should adopt by 2015, before work on new development goals begins.[50]

For the high-level meeting of the 68th Session of the General Assembly (2013), the President of the General Assembly chose the theme of creating "a new post-2015 development agenda to succeed the current Millennium Development Goals." As members of Asia-Pacific countries (many of which represent small island nations that are threatened by rising sea levels) spoke at the General Assembly towards the end of September 2013, they emphasized the need for incorporating adaptation to climate change and reducing GHG into the post-2015 development agenda. In discussing the post-2015 agenda, Deputy Prime Minister of Tuvalu Vete Palakua Sakaio stated that "[c]limate change is no longer an environmental or political issue…It is a borderless human security issue. Everybody must act to urgently reduce GHG (greenhouse gas) emissions and provide adaptation."[51]

Conclusion

Developed states failed to meet their 2012 Kyoto commitments, and developed and developing states have been unable to agree on post-2020 targets that would apply to them all. Even if they do so, without substantial aid and attention, new goals may also be difficult to meet. What can the GA do to spur progress in reducing GHGs and help states develop the capabilities they need to adapt to climate change?

In developing your country's position on this issue, consider the following questions:

-- Is your state a developed country or a developing country?
-- What are its current and historical greenhouse gas emissions?
-- Has your state signed and ratified the FCCC Kyoto Protocol? Why or why not? If so, did it meet its emission targets? Why or why not? Has it supported calls for a new commitment?
-- Is your country suffering from problems related to climate change? How has it dealt with these problems? Has it received assistance? What are the likely long-term effects of climate change in your country?
-- How can and should the General Assembly encourage states to adapt to climate change? What is the right mix of emissions reduction and adaptation? What kind of adaptation is most needed?
-- Given the connection between level of development and ability to adapt, should the GA revise the MDGs to include climate goals? If so, which goals should be amended, and how?

Recommended Reading

Intergovernmental Panel on Climate Change (IPCC). "IPCC Fourth Assessment Report 2007." 2007. Available at http://www.ipcc.ch/publications_and_data/ar4/wg1/en/contents.html.

This 2007 report is the most detailed statement of the climate change problem and possible policy responses. The "Summary for Policy Makers" (http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf) provides a concise statement of the challenges in each world region. For the recent update of scientific findings, see IPCC "Climate Change 2013: The Physical Science Basis," 30 September 2013, http://www.ipcc.ch/report/ar5/wg1/#.UknMUYbNU0E.

[50] UN General Assembly, "Thematic Debate Sustainable Development and Climate Change: Practical Solutions in the Energy-Water Nexus," 16 May 2013, available at http://www.un.org/en/ga/president/67/issues/climatechange/Sustainable%20Development%20and%20Climate%20Change_Briefing%20Note%20on%20Panel%20Discussions.pdf

[51] UN News Centre, "Asia-Pacific nations at UN call for urgent global approach to mitigate climate change," 28 September 2013, available at http://www.un.org/apps/news/story.asp?NewsID=46125&Cr=climate+change&Cr1=#.UkhpoD-2ZWU.

Intergovernmental Panel on Climate Change. "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation," 2012. Available at http://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf

Sections 6.4 and 6.5 of this document detail strategies suggested by the IPCC for dealing with climate change in more detail. Chapter 7 provides an overview of international law, efforts at creating integrated international responses to climate change, and potential strategies for an international response.

New York Times. "Global Warming and Climate Change." Available at http://topics.nytimes.com/top/news/science/topics/globalwarming/index.html

This site provides access to recent articles and data on climate change. You can search for your country's name. See also the articles in footnotes 32 and 39 by NYT environmental expert Elisabeth Rosenthal.

Organization for Economic Cooperation and Development (OECD). "Handbook on the OECD-DAC Climate Markers." September 2011. Available at http://www.oecd.org/dac/stats/48785310.pdf

The OECD recently announced that it would begin to score countries on their efforts to reduce emissions and adapt to climate change. This handbook explains how countries will be scored. In the meantime, see the World Bank source in footnote 23 for data on national emissions.

School of Geography and the Environment. "UNDP Climate Change Country Profiles." Available at http://country-profiles.geog.ox.ac.uk/ , accessed 20 September 2013.

This website provides country-level climate data summaries on 52 developing countries. It was created to help bridge the information gap on climate change for developing countries.

United Nations. "Gateway to the UN System's Work on Climate Change: Examples of UN Projects." Available at http://www.un.org/climatechange/projects.shtml, accessed 20 September 2013.

This website provides country-specific examples of UN work on renewable energy projects.

United Nations. "Millenium Development Goals Report 2013," 2013. Available at http://www.un.org/millenniumgoals/reports.shtml.

This report uses graphs and photos to show the work that has been done to meet the MDGs in various countries and regions since 2000. It also provides suggestions for meeting the goals by 2015.

UN Framework Convention on Climate Change. "Essential Background: The Convention and the Protocol." Available at http://unfccc.int/essential_background/items/2877.php , accessed 30 September 2013

This website provides access to background information and the texts of the FCCC and Kyoto Protocol, as well as a list of states that have ratified each treaty. It also lists GHG data from reports given by states. See also "Meetings" at http://unfccc.int/2860.php# which discusses meetings and provides links to information on recent and upcoming negotiations. You can search these documents for summaries of your country's speeches.