GROUP OF FIFTEEN

Developing Nations and Climate Change

By Jason Burke

Introduction

For centuries, Mount Kilimanjaro, in the middle of Tanzania, has been famed for its glaciers. The once fabled "Snows of Kilimanjaro" even inspired a famous short story by the famous American novelist, Ernest Hemingway. Yet, these glaciers have been rapidly disappearing in recent years. One of the world's leading experts on mountain glaciers, Dr. Lonnie Thompson of the Ohio State University, has predicted that there will be no more snow on the slopes of Mount Kilimanjaro within the next decade. The debate about just how much of this melting **epidemic** is related to global warming is heated, to say the least. However, many leading experts agree that—at least to some extent—the storied snows of Mount Kilimanjaro are falling victim to the global warming epidemic.

Epidemic—*affecting or tending to affect a disproportionately large number of individuals within a population, community, or region at the same time .*

From pole to pole, the story is much the same. In Europe, many of the major glaciers in the Swiss, Italian, and French Alps have shrunk drastically over the last century; others have disappeared completely. One of the **starkest** illustrations of the loss of ice mass over the last century is the recession of the Upsala Glacier in Patagonia, a region in the south of Argentina. In place of the former sheet of ice is a lake of melted glacial water. The situation is the same at the Qori Kalis glacier in the Peruvian Andes. Three decades ago, this glacier filled an entire mountain valley, but the glacier today has receded greatly, revealing a glacial lake in the valley that it had recently filled.

Stark—*sharply delineated.*

While many would consider the loss of such glaciers a tragedy in and of itself, developing nations, particularly ones that have problems providing basic necessities to many of their poorest citizens, have much greater concerns than the loss of geological heritage. Why then is the loss of glaciers so important to the discussion of environmental standards for development? Such a conversation is pivotal because the disappearance of glaciers is indicative of a more significant problem regarding global warming. While the theory behind the climate models is still heavily debated, it appears that temperatures across much of the globe have likely been rising. With rising temperatures come many negative consequences such as stronger and more frequent storms, floods in some areas, droughts in others, and rising sea levels. These problems have the ability to cause severe problems throughout the world, but such problems would be particularly devastating for developing nations.

Explanation of the Problem

Global Warming in Theory: The Greenhouse Gas Effect

Basic science states that the Earth is warmed when the energy from the sun's rays enters the Earth's atmosphere as waves of light. This energy heats up the Earth and much of it is ultimately **radiated** back into space as infrared light waves. Some of this energy, however, is trapped by greenhouse gases and causes atmospheric warming close to the surface. The seven most abundant greenhouse gases on Earth are water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons. Of course, this trapping is not only a good thing for the Earth; it is necessary for life to persist on Earth. Our neighboring planet Mars has a very thin atmosphere from which the major greenhouse gases are mostly absent. As a result, summer high temperatures reach 20° C (68° F) but winter temperatures can drop as low as -140° C (-220° F), making the planet uninhabitable. Therefore, a certain level of greenhouse gases is a necessary condition in order to make a planet inhabitable.

Radiate—*to spread abroad or around as from a center.*

On the other extreme from Mars, however, is the planet just on the other side of Earth—Venus. Venus has an atmosphere that is primarily composed of greenhouse gasses. Rich in carbon dioxide and nitrogen, with clouds of sulfur dioxide, the greenhouse gas effect on Venus is extremely strong; temperatures on the surface routinely reach up to 460° C (860° F). These high temperatures make life on this planet absolutely impossible. In theory, global warming should occur when more greenhouse gases are pumped into the Earth's atmosphere. Of course, no scientist suspects that temperatures on Earth will approach anything close to those witnessed on Venus. Still, basic science seems to indicate that as humans pump greenhouse gases like carbon dioxide into the Earth's atmosphere, the atmosphere will trap more of the sun's energy causing the average temperature on Earth to rise. Though a slight rise in temperatures may seem insignificantly small, the consequences can be far reaching. The mechanics of global warming are arguably not **adequately** understood by scientists as the Earth's climate is an extremely complex system that greatly complicates any analysis of climate change, but at this point, many climatologists are very confident about the science behind climate change theory.

Adequately—*sufficient for a specific requirement.*

The History of Global Warming

Over the past decade, the topic of global warming has been hotly contested among scientists and politicians. In recent years, the theory and its existence have been widely accepted by numerous **academies of science**, including the national academies of science of all of the major industrialized nations. Though the degree to which the phenomenon has affected the world's atmosphere is still contested, many of the basic

Academy of science—*a society of learned people organized to further science.*

facts regarding global warming are accepted by a significant majority of the scientific community.

The dramatic rise in greenhouse gases humans are pumping into the atmosphere started in the late eighteenth century in Britain with the onset of the Industrial Revolution. During the Industrial Revolution, many processes—such as textile manufacturing—that used to be completed by hand were now being completed mechanically. Many new machines were invented to take over the different processes that could once only be done by hand. Operating these large machines, however, took a great deal of power and new sources of energy. These new energy sources often included the use of **fossil fuels**, such as coal. When fossil fuels are burned, carbon dioxide and other greenhouse gases are released into the atmosphere—thus raising the level of greenhouse gases in the atmosphere.

Fossil fuel—*a fuel (as coal, oil, or natural gas) formed in the earth from plant or animal remains* .

Throughout the two and a half centuries between the beginning of the Industrial Revolution and present day, many other technologies requiring the use of fossil fuels for energy have been discovered. The most notable among these is the internal combustion engine, which fueled the rise of the automobile. Powered by gasoline, another hydrocarbon, the growing popularity and availability of the automobile led to an increased demand for gasoline. Gasoline is a byproduct of crude oil, a fossil fuel trapped deep within the Earth's crust, and as the consumption of it has increased drastically, the amount of carbon dioxide being pumped out into the Earth's atmosphere has as well. Yet automobiles are far from the only major source of greenhouse gases. Indeed, the oil refineries used to refine crude oil into gasoline function on fossil fuels and thus produce greenhouse gases. Electricity is often produced using fossil fuels like coal. Overall, the sources of greenhouse gas emissions are countless and are increasing in number as developed nations continue to use increasingly vast amounts of energy and developing nations, in their quest to catch up, use the cheap fossil fuel technologies that pollute the most.

The results of this continued period of industrialization are clear—rapidly rising concentrations of greenhouse gases in the Earth's atmosphere. The levels of all major greenhouse gases have increased since the beginning of the Industrial Revolution—in no small part due to human activity. The use of one specific group of greenhouse gases—chlorofluorocarbons—was so widespread and detrimental to the **ozone layer** that the use of these chlorofluorocarbons was strictly limited in the Montreal Protocol of 1987 by near consensus. The two greenhouse gases that have been the primary targets for climate change campaigners—carbon dioxide and methane—have also increased drastically in concentration. The concentration of carbon dioxide in the Earth's atmosphere has increased by 34% and that of methane by a staggering 149% over the course of the past 250 years. Much of this increase has

Ozone layer—*the layer of ozone (a form of oxygen) in the atmosphere that is largely responsible for filtering out UV rays..*

been **attributed** to human activity. The increase in greenhouse gases is also believed to have created a **positive feedback** cycle in which water vapor has become more abundant in the atmosphere. As greenhouse gases like carbon dioxide have caused the earth to warm, more water vapor has evaporated into the atmosphere. As water vapor itself is a greenhouse gas, it has led to a further warming of the globe, which has, in turn, led to even more of the evaporation that creates water vapor in the first place. As such, the greenhouse gas effect is self-perpetuating.

Attribute—*to explain by indicating a cause.*

Positive feedback—*feedback that tends to magnify a process or increase its output.*

As a result of this increase in greenhouse gases, the greenhouse effect has begun to **manifest** over the last century. Over the course of one hundred years from 1905 to 2005, the average air temperature near the surface of the Earth are believed to have increased by around 0.74° C (1.33°F).

Manifest—*to make evident or certain by showing or displaying.*

Negative Effects for Developing Nations

Perhaps the most profound negative effect for developing nations is the potential for damage done to agriculture around the world. Coming into 2008, the world was witnessing one of the worst food crises in recent memory. Maize prices had risen 125 percent, wheat prices 136 percent, soybeans 107 percent, and rice—a staple in many developing nations—had risen upwards of 217 percent since 2006. The spike in prices was in no small part due to demand-side factors. The September 2008 estimate for the population of the world was 6.7 billion people. That is a dramatic increase of 700 million people since 2000, when the world crossed the 6 billion mark for the first time. If the population of the world keeps growing at its current pace, the world will cross the 9 billion mark by 2042. With an ever-increasing population, the demand for food is simultaneously increasing at a very rapid rate.

Commensurate—equal in measure or extent.

Unfortunately, the world's supply of food has not increased at **commensurate** rates, driving up prices and contributing to the ongoing food crisis. China—the world's most populous country—has a growing middle class that is shifting from a traditional Chinese diet of rice to a diet that contains much more meat. As livestock consumes great amounts of crops, more and more maize and wheat that could be eaten by the world's poor are now being shifted to use for feeding livestock. Similarly, with a growing emphasis on green energy in developed countries, more corn that could go to the world's poor is now being diverted to make ethanol to fuel automobiles. These and other supply-side factors are driving up the price food **exponentially** to a point where it is becoming a crisis. Global warming is only expected to **exacerbate** the problem by further decreasing the available supply of food. With global warming, the usual distribution of precipitation in certain areas of the world can be dramatically shifted. While some areas that once received enough precipitation to sustain **arable** land are suffering from droughts, other areas are overwhelmed by monsoon rains. The former situation

Exponentially—*characterized by or being an extremely rapid increase .*

Exacerbate—*to make more violent, bitter, or severe.*

Arable—*suitable for farming.*

has occurred with some areas seeing record-high temperatures and prolonged droughts. The latter situation has been seen with flooding rains and tropical cyclones washing out planted crops. In both cases, entire harvests can be destroyed indirectly by global warming, thus further reducing the available supply of food and raising prices.

Although **detrimental** effects on world agriculture and the resulting price spikes may have the most immediate effects on developing nations, other potential effects of global warming could be more devastating in the long-run. One of the other effects of global warming that has been both hypothesized and documented is the increasing severity of weather events such as tropical cyclones (hurricanes). In the Atlantic basin, tropical cyclones generally strike the United States and Mexico. Occasionally the Central American nations are affected. Yet, more recently, the north coast of South America—Venezuela (a G-15 member state) included—has been getting hit with increasing numbers of hurricanes, which translates into high costs associated with recovery and rebuilding. Other strong weather systems not limited to coastal areas are also **wreaking havoc** on the nations of the world. With severe storms potentially increasing in frequency, intensity, and distribution, more nations will need to consider the possibility of incurring high costs from damages caused by severe weather.

Detrimental—*to be obviously harmful.*

Wreak havoc—*to cause the infliction of chaos and disorder.*

One other particular area of concern is the daunting possibility of significant rises in sea level. Rising temperatures could cause fresh water once trapped in the polar ice caps in Greenland and Antarctica to melt, creating a new **influx** of fresh water that could cause sea level rises. Rising sea level is particularly concerning for low-lying coastal regions that are susceptible to being overwhelmed by rising waters. Overall, nearly 40% of the world's population lives within 100 kilometers (approximately 60 miles) of the coast. If drastic sea levels rise were to occur, massive urban centers would have to be relocated. For example, in China, much of the Beijing and Shanghai metropolitan areas would have to be relocated—about 60 million people. The flooding of low-lying areas would clearly carry over to member states of the Group of 15; only one member state, Zimbabwe, does not have a coastline, and many have large cities along the coast.

Influx—*a coming in.*

A rise of even a meter could severely affect many of these aforementioned large urban areas, interfering with coastal economic development and possibly forcing the difficult evacuation of these areas. The economic and human impact of global warming could be potentially catastrophic.

Recent Developments

Many argue that tropical cyclones have increasingly intensified during the past few decades. In the Pacific, a severe cyclonic storm

struck Sri Lanka in 2001, causing 17 fatalities and leaving 500,000 homeless on the island. Although the United States is not a developing nation, economic downturns in the US do negatively influence world markets, so as storms hitting the southeastern United States have gotten stronger, the economic damage to developing countries has increased. Hurricane Katrina in summer 2005 devastated New Orleans, Louisiana, and caused shocks to the American economy. The threat of even stronger storms costing the United States more money means that developing nations have to face the prospect of lowered aid from the United States. Even regions that were once exempt from cyclonic storms are no longer safe. The South Atlantic, which had never before seen a cyclonic storm, was shocked when Cyclone Catarina formed in March of 2004. The storm slammed into Brazil, causing 10 deaths and $350 million in damage. In short, if storms are indeed getting stronger and more widespread, countries need to be on the lookout.

Severe weather, however, does not just come in the form of tropical cyclones. Experts suspect that several other irregular weather patterns are being caused by global warming. In early 2008, Peru experienced **torrential** rains that caused great flooding. In all, thousands of homes throughout the nation were destroyed and dozens of people were killed by the weather. In Algeria and Egypt, the mighty Sahara Desert is expanding and encroaching on once livable land. The situation in Algeria, however, is not quite as simple as progressive **desertification**. Indeed, the process of desertification was interrupted in November 2001 as torrential rains caused flash flooding that killed over 600 residents. In Argentina, severe weather that is suspected to be related to global warming struck in April 2003 when Santa Fe, Argentina's fifth most populous city, was completely flooded after days of unusually heavy rains. Overall, 24 people died, 100,000 had to be evacuated, and 25,000 houses were severely damaged or destroyed. As Santa Fe is in the middle of fertile farmland the floods also destroyed a great deal of the Argentine crops for the year, resulting in an economic downturn for the country. The list of other catastrophic weather events in G-15 nations could go on, but overall, severe weather that many believe is being promoted by global warming has had extremely high costs for many developing nations.

Torrential—*to be characterized by a tumultuous outpouring.*

Desertification—*the process of normal land becoming desert through land mismanagement or either natural or manmade climate change.*

The situation with world agriculture has also recently been negatively affected by global warming. The food price crisis of 2008 has been **propelled** by rapidly growing demand without commensurate rises in food production. Some claim one of the reasons for this insufficient supply is global warming's effect on world agriculture. For example, in a normal year Australia exports more wheat than any other nation except the United States; in a good year, about 25 million tons can be produced in Australia. However, the nation has witnessed a significant drought for several years resulting in significantly reduced crop yields. The

Propel—*to drive forward or onward by or as if by means of a force that imparts motion .*

2006 harvest netted less than 10 million tons of wheat—well under half the usual amount. In Burma, Cyclone Nargis caused a storm surged that **inundated** rice crops miles from the shore. This inundation caused a drop in the amount of rice Burma is exporting. Overall, such catastrophic weather events, which some at least partially attribute to the effects of global warming, have decreased the supply and raised the price to levels unattainable for many developing nations.

Inundate—*to cover, as with a flood.*

Focus of the Debate

The member states of the Group of 15 understand the importance of the environment and do place a value on its preservation. Due to a number of factors, however, the Group of 15 as a whole has not created a collective framework for sustainable development—that is, economic development conducted in an environmentally conscious manner.

In the **communiqué** leading up to its first summit in June 1990 in Kuala Lumpur, the nations of the Group of 15 recognized the threat to the environment. In their memorandum, they collectively stated:

Communiqué—t brief public notice issuing usually from an authoritative source.

> Conscious of the responsibility which we bear, together with all other countries, for the future of mankind, we reaffirm the need for effective actions for the protection of the environment. Urgent and renewed efforts are therefore needed on a wide front to safeguard the environment. Any global initiative in overcoming environmental problems requires concerted international cooperation based on an equitable sharing of responsibilities and which takes into account existing **asymmetries** between developed and developing countries. Developing countries require substantial additional resources for pursuing their goals of sustainable development, including access to environmentally sound technology at affordable costs and the establishment of funding mechanisms. We recognise the importance of coordinating our positions on issues of major concern to us on the agenda of the forthcoming U N Conference on Environment and Development to be held in Brazil in 1992.

Asymmetry—*to be unequal; dissimilarity.*

It is clear, therefore, that these nations are not ignorant to the importance of the environment and the effects of global warming, though they have not taken any substantive action on the level of the Group of 15. These nations have not fully neglected the environment despite indications of early interest in action at the G15 level that never **materialized**. The vast majority of the G-15 member states (all but Zimbabwe) signed the Kyoto Protocol, which is an aggressive attempt to reduce

Materialize—*to come into existence.*

greenhouse gas emissions in order to calm the effects of **anthropogenic** climate change. For the developing nations that signed and ratified the Kyoto Protocol, responsibilities simply include monitoring and reporting their greenhouse gas emissions. This duty is far from the responsibility that developed nations have of actually reducing their emissions, and this difference is the key reason a number of developed nations, most notably the United States, have not signed the Kyoto Protocol. On the other hand, the ratification of the treaty by these developing nations does show some level of commitment on their part to take action to redress environmental harm.

Anthropogenic—*Created by humans.*

There seem to be two larger reasons why the Group of 15 did not implement more of the actions that are laid out in the communiqués of later Group of 15 summits. First, the G-15 member states realize that the developed nations actually emit the vast share of the world's greenhouse gases, and they argue that because the developed world has benefited from such great levels of emissions, it should bear the burden of greenhouse gas reductions. Second, they note the vast expense involved in environmental cleanup and realize that they simply cannot afford to absorb these expenses in most cases. Both of these sentiments are expressed in a more recent communiqué from the 2001 summit in Jakarta, Indonesia:

> We note that the environmental consciousness and momentum generated by the United Nations Conference on Environment and Development (UNCED) held in 1992 in Rio de Janeiro have not been matched with adequate action by most industrialized countries, which bear responsibility for the greater share of environmental **degradation**, in failing to take any meaningful measures to reverse their unsustainable patterns of economic activity and consumption. Industrialized countries have not fulfilled their commitments to provide the necessary assistance, including new and additional financial resources, technical expertise and the transfer of environmentally friendly technology on favourable terms to developing countries. These factors are crucial to the implementation of national policies and multilateral environmental agreements as well as the improvement of the competitiveness of environmentally friendly goods and services of developing countries.

Degradation—*decline to a low, destitute, or demoralized state.*

Overall, though many G-15 nations are aware of environmental concerns, they have refused to take affirmative action on the issue of greenhouse gas emissions as they feel victimized by industrialized nations who pollute greatly yet are resistant to true change.

NGO Perspectives

Greenpeace

Greenpeace is an international non-profit dedicated to protecting the global environment. The issue of climate change is currently the one issue to which Greenpeace has dedicated the most time and resources. They feel that it is absolutely necessary to inspire a global energy revolution in order "…to go from a world powered by nuclear and fossil fuels to one running on renewable energy." Right now, Greenpeace has targeted coal as the greatest environmental offender and the first substance that needs to go. While Greenpeace clearly understands the inequity of the situation and identifies industrialized nations—particularly the United States—as the greatest environmental offenders, they would encourage the G-15 to invest in the world's future by creating a framework through which to wean themselves off of fossil fuels. Greenpeace would likely suggest that the G-15 invest resources in becoming **bastions** of clean energy technology, which could benefit these countries as the world shifts to the energies of the future.

Bastion—*a fortified area or position.*

Oxfam International

Oxfam International is an organization that works to end poverty and injustice in diverse parts of the world. Although Oxfam is dedicated to its anti-poverty work, they feel that climate change is an important related issue. Oxfam itself says that, "[f]or poor people, who are dependent on predictable weather patterns, the damage brought about to land and crops – whether by increased flooding, droughts, or rising sea level rises – can mean no food, no earnings, and no way to secure a better future." Therefore, while Oxfam places an emphasis on starting to reduce emissions in rich countries and then focusing on currently developing countries, the organization would be quick to remind the member states of the G-15 that they are the very states most affected by climate change. As such, a viable and strong framework to reduce emissions and combat climate change coming from the G-15 could send a powerful message to the rest of the world. Simultaneously, they would be cautious not to put undue pressure on these developing economies in the name of economic development, thus further destabilizing these already fragile nations and driving more people into poverty.

The Red Cross

The Red Cross is particularly concerned with helping people recover from serious disasters. In the United States, for example, the American Red Cross was extremely active in New Orleans, Louisiana in the wake of Hurricane Katrina. The Red Cross is similarly involved in disaster situations around the world ranging from the 2004 Indian Ocean earthquake to Cyclone Nargis, which affected Myanmar in 2008. With

the advent of extreme weather events potentially connected to global warming that may cause widespread damage such as powerful hurricanes, heavy rains, and droughts, the Red Cross would likely support a framework in which the developing nations agree to reduce the effects of greenhouse gas emissions and thus mitigate some potentially devastating effects of global warming.

Possible Solutions

Carbon Emissions Trading Framework

Many nations of the world are currently debating the merits of carbon trading schemes. Under such systems, each company within a nation is allowed (at no expense) to release a certain amount of pollution that is set by the government. Some plants or nations do not pollute as much as they are allowed to, and these entities can turn around and sell their excess pollution rights to other industries or nations that pollute more than they are currently allowed to pollute. The most widespread of these systems is the European Union Emissions Trading Scheme (EU ETS), which currently encompasses over twenty nations. Such a comprehensive scheme could be adopted by the members of the Group of 15 nations. Of course, this would put the Group of 15 nations at a disadvantage when it comes to development because of the limits imposed on cheap energy and production, but depending on how urgent they deem the situation and accompanying **concessions** from developed nations, it may be a course of action that developing nations are willing to pursue.

Concession—*in this context, something given up to facilitate negotiations.*

More Stringent Emissions Standards

While a carbon trading scheme may be an admirable goal to work towards, its immediate implementation may not be incredibly realistic. One of the most successful international protocols in history was the Montreal Protocol on the use of chlorofluorocarbons. This Protocol did not establish a trading scheme; rather, it set strict limits on what quantity of chlorofluorocarbons could be emitted in total. The setting of more **stringent** emissions standards for greenhouse gases like methane, carbon monoxide, and carbon dioxide could be a more effective first step towards the overall reduction of harmful emissions. Trading schemes may be more palatable overall, but are also much more politically contentious to enforce and difficult to implement than simple limits.

Stringent—*marked by rigor, strictness, or severity especially with regard to rule or standard.*

Cooperation with Developed Nations

Many technologies exist which would allow developed nations to continue to develop while simultaneously reducing emissions—clean coal is just one of these many innovations. Yet many of these technolo-

gies are prohibitively expensive, and developing nations are not willing (or sometimes able) to pay out **exorbitant** amounts of money to buy them. Yet developed nations have the capital to finance such ambitious projects, and many have the desire to do so. It may be advantageous for the Group of 15 to cooperate with the Group of Eight in an attempt to get developed nations to sponsor projects aimed at transitioning these developing nations from dirty energy to clean energy.

Exorbitant—*to be exceeding the customary or appropriate limits in intensity, quality, amount, or size.*

Questions for Policymakers

One of the most important things to consider when crafting a bill is the amount of power that you want the Group of 15 to assume. The Group of 15 in the past has expressed a great deal of concern about environmental issues but has not substantively acted on these concerns. This lack of action is partly because developing nations are hesitant to reduce their emissions when developed nations do not appear to be taking similar actions. Yet this inaction may also be related to the fact that the Group of 15 does not usually take sweeping and **binding** action. Creating a carbon trading scheme or even crafting more stringent emissions standards would be a sharp departure from history, but is most assuredly possible. How far do you want to take the power of the Group of 15? And if the Group of 15 decides to cooperate with the Group of Eight on environmental issues, what will the Group of Eight nations contributing the money get in return? All of these are important questions that will need to be addressed when crafting a policy.

Binding—*legally constraining.*

Conclusion

The environment is clearly one of the most world's most precious and delicate resources. Yet, carbon emissions generated by humans are working to swiftly change hundreds of millions of years of natural history. As temperatures rise and the climate changes, the extinction of valuable plants and animals could become more frequent. Further, natural disasters like hurricanes and floods could become more frequent and dangerous. All of these factors combine to create a difficult situation for every nation in the world today—especially nations in the developing world that are particularly susceptible to the effects of climate change. It is clearly a difficult issue and sacrifices must be made. Yet, who will bear the burden of these sacrifices? This is an issue that must be debated urgently among the nations of the world.

Guide to Further Research

For further research about the effects of global warming, it is helpful to look at the work of the United Nations' Intergovernmental Panel on Climate Change. The most recent report in particular has a great deal of information about the effects of global warming. Scientific journals are also quite helpful for researching environmental issues. Journals that may be the most useful and the easiest to read are Climate Dynamics, Climate Change, and Environmental Science and Policy.

Within the more scientific literature about global warming and its effects, you will likely find a great deal of literature about global warming-related weather events. An example of one such event that was mentioned in this briefing is the strong cyclone in Brazil. If you come across one of these **contemporary** events that may have made the news at some point, it is helpful to look in major news sources' archives such as BBC and the New York Times.

Contemporary— *happening, existing, living, or coming into being during the same period of time.*

You should be sure to look at past G15 communiqués to gain an idea of the type of resolution and policies you will be creating in committee. Unfortunately, the G15 website is a bit outdated and can be difficult to use, but because of the limited history of the G15, you will not need to perform extensive research to be up-to-date on it.

Beyond the G15 and global warming itself, however, you should also be sure to research proposals to combat global warming in different ways. Look at existing measures and judge their efficacy, but also look at fresh ideas that you can bring to the table. Demanding problems often require creative solutions, and in the course of your research, you will find that there are many, many different ideas for combating climate change out there.

Should you need any help with your research, please do not hesitate to contact your chair, Jason Burke (jburke@fas.harvard.edu).

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