



GROUP OF FIFTEEN

Developing Nations and Climate Change Update

By Evan Covington

Introduction

As the world is rapidly transforming and industrializing, concerns about the effects of climate change have become increasingly prominent in the minds of leaders and citizens across the globe. Both developed and developing nations must now work together and propose solutions that will help save the planet from further damage. However, many nations are bound to disagree on how to approach this question of climate change, and a variety of policies aimed at addressing this concern will surely arise during debate. Nations from both the G8 and G15 must work cooperatively to provide realistic solutions that are efficient and fair, both economically and environmentally.

Summary of the Problem

Through the growth and development of nations across the world, the seemingly stable climates are now changing. The dynamics of economic production and modern lifestyle have changed, and have often resulted in the growth of technology – like the automobile, airplanes, home appliances, and more – that release harmful greenhouse gases (GHGs) into the atmosphere. Many of the common greenhouse gases, such as water vapor and carbon dioxide, absorb radiation from the sun in the atmosphere and cause the earth to heat up, resulting in what is widely known as global warming. Simultaneously, increased **chlorofluorocarbons (CFCs)** like methane deplete the **ozone layer** that protects the surface of the Earth from harmful **ultraviolet rays**. According to the United States **Environmental Protection Agency (EPA)**, emissions from developing countries are projected to exceed the emission levels of developed countries by 2015. This demonstrates the rapid rates of development in such countries and illustrates the necessity of countering the rising levels of GHGs. Changes in climate have also led to transformations in weather patterns that have disrupted food supplies and led to innumerable natural disasters, ranging from powerful cyclones and hurricanes to prolonged droughts and famine. Global warming has also begun to melt the polar ice caps. Subsequently, some areas may see sea levels rise by up to 1 meter by 2100 – a danger to many cities of both developing and developed nations. Clearly, the issue of climate change must be addressed as rapidly as possible. Nations of the G8 and G15 must provide an appropriate remedy to this serious issue.

CFCs—*abbreviation for Chlorofluorocarbon.*

Ozone layer—*an atmospheric layer that blocks most solar ultraviolet radiation from entering the lower atmosphere.*

Ultraviolet ray—*electromagnetic radiation with a wavelength shorter than that of visible rays but longer than that of x-rays.*

EPA—*a government agency in charge of safeguarding the environment.*

Recent Developments

The Financial Crisis and Climate Change

With the onset of the recent financial crisis, climate change has been viewed as a less acute problem as compared to the issue of economic recovery in many countries. The global financial crisis has **obscured** the importance of the battle against climate change and has made it more difficult for nations to agree on a comprehensive strategy to fight climate change. According to the United Nations Climate Chief Yvo de Boer, who addressed representatives from 190 countries at a conference in Poznan, Warsaw in December 2008, “Climate change is an environmental problem looking for an economic answer...The challenge is to achieve green economic growth.” However, in a more positive light, de Boer also mentioned that the worldwide economic recession would likely lead to lower levels of GHG emissions as economic activity slows.

Despite the economic recession, American President Barack Obama continues to push forward with the intent of mitigating climate change by re-engaging the international community on the issue. He also signaled his plan to use his executive powers to raise **fuel standards** on American automobiles, which are huge contributors to global atmospheric GHGs and CFCs.

However, regardless of developed nations’ changing policies on climate change during the economic slump, G15 countries and other developing countries still lack the means to obtain more efficient **green technologies**. According to the National Center for Atmospheric Research (NCAR) and the University of Colorado, “Few developing countries will be able to afford more efficient technologies to reduce greenhouse gas emissions in the next few decades.” At the same time, their study concluded that “economic and technological disparities will make it more difficult than anticipated to reduce greenhouse gas emissions, [underscoring] the challenges that poorer nations face in trying to adapt to global warming.” The main problem for G15 and developing countries lies in the question of how to obtain and keep funding for green initiatives in times of financial stress. This will be an important subject for policy makers to consider.

The Changing Climate and Food Security

Food security has been greatly affected by changing climate in developing parts of the world. In Southern Africa, climate changes have diminished annual rainfall and reduced crop yields. Countries such as Lesotho, Namibia, Mozambique, Swaziland, and Zimbabwe have been encountering extreme food shortages since 2007 as the climate continues to change. Rain patterns have also begun to change in Western Africa, where the rain season is now beginning later and leading to more

Obscure—to make indistinct or unrecognizable.

Fuel standard—standards meant to improve the efficiency of automobiles and reduce their environmental impacts.

Green technology—energy and environmentally friendly technology focused on sustainability, innovation, and viability.

crop failures.

In other areas of the world, such as the Caribbean and Southeast Asia, increased rainfall resulting partly from changing climate has led to floods that have destroyed countless tons of crops and disrupted food supply both domestically and abroad. Climate change has thus become **exacerbated** to the point where the food supply can no longer be considered secure.

Exacerbate—to make worse.

Green Technology and the Developing World

The implementation of green technology in developing countries has become more important than ever. More developing countries are demanding green technology to help sustain their growing populations and **consumption** of goods. Examples of green technology subject areas include but are not limited to:

Consumption—the utilization of goods.

- Energy – This includes energy generation, energy efficiency, and the development of renewable fuels; it is potentially the most important issue for green technology.
- Green Building – Encompasses concepts of building materials and building placement.
- Green Chemistry – The invention, design, and application of chemical products and processes to eliminate the use and generation of hazardous substances.
- Green Nanotechnology – The application of green chemistry and green engineering to enhance **nanotechnology**.

Nanotechnology—any technology on the scale of nanometers (1.0×10^{-9} meters).

Many developing countries and G15 nations continue to lack the scientific resources and appropriate funds to afford green technology. This issue is becoming painfully obvious as emissions of GHGs from developing countries continue to rise every year. Nations of the G15 and G8 therefore must work together to develop methods to spread green technology and mechanisms to developing countries.

Focus of Debate

Several key areas compose the debate on climate change. One of the main issues that troubles policy makers is whether the world should place more emphasis on methods to reduce greenhouse gases, such as **emissions caps** or on methods to develop clean technologies. Additionally, debate surrounds the question of whether developing countries should have affordable access to new environmentally friendly innovations that developed countries already possess. It has also become a challenge to countries to determine which nations are responsible for increased global warming. Developing countries continue to ar-

Emission cap—upper limits on emissions that are intended to protect the environment.

gue that more developed nations like the United States are contributing the most to climate change; they believe such developed nations produce more GHGs, thus forcing climate change. Conversely, developed nations argue that developing nations are more to blame since their industrialization and emission outputs are steadily increasing over time. Because the **Kyoto Protocol** lacked emissions constraints on countries like China and India, the United States refused to ratify it; as such, policy makers are striving to develop more effective measures that more nations would be willing to **endorse**.

Kyoto Protocol—*an international treaty aimed at protecting the environment.*

Endorse—*to officially support.*

Questions for Policymakers

Many questions lie ahead for you as you develop your perspective on climate change and potential solutions. From a very broad and general perspective, what are some ways G8 and G15 countries can work cooperatively to reduce GHGs and CFCs within the atmosphere? It is crucial that both developed and developing nations change the way they operate and shift towards more environmentally sustainable methods of living. Likewise, how might G15 and other developing countries finance and implement sustainable technologies and environmentally friendly practices in their countries? Many of these countries lack the funds to finance such initiatives, and they are critical components to the climate change the world now faces. Moreover, how might the G8 and developed countries more effectively curb climate change? As you think about these, consider the economic and social implications of potential solutions. The world truly needs some comprehensive solutions that will positively affect both developed and developing nations in the climate change arena.

Conclusion

Though the earth's climate seems impervious to man's actions, the last few decades have shown that this is not the case. Without taking the proper steps to adapt to climate change and mitigate its effects, both developed and developing nations will suffer. You have been entrusted to come up with creative, practical, and equitable solutions that take into account the priorities and concerns of both developed and developing nations. The longer policy makers prolong addressing this issue, the harder it will be to develop effective solutions; this is why you must take action now, before it is too late.

Bibliography

Coile, Zachary. "Obama Signals Sea Change in Climate Policy." *San Francisco Chronicle*. 26 January 2009 <<http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2009/01/26/MNGA15H8JT.DTL>>

Gera, Vanessa. "UN: Financial Crisis a Burden on Climate Change." *Associated Press*. 27 November 2008 <<http://www.sfgate.com/cgi-bin/article.cgi?f=/n/a/2008/11/27/international/083442S13.DTL&type=health>>

Lankao, Patricia R., Douglas Nychka, and John Tribbia. "Climate Change Threat: Developing Countries Lack Means to Acquire More Efficient Technologies." *The University Corporation for Atmospheric Research*. 9 December 2008 <<http://www.ucar.edu/>>

Mannak, Miriam. "Africa: Climate Change Threatens Food Security." *Inter Press Service*. 19 January 2009 <<http://www.ipsnews.net/index.asp>>

"Sea Level Rise of One Meter Within 100 Years." *Science Daily*. 11 January 2009 <<http://www.sciencedaily.com/>>

Spotts, Peter N. "Climate change debate: push emissions goals or technology?" *The Christian Science Monitor*. 7 April 2008 <<http://www.csmonitor.com/>>

United States. Environmental Protection Agency. *Climate Change - Greenhouse Gas Emissions*. 9 September 2008 <<http://www.epa.gov/climatechange/emissions/globalghg.html>>

"What is Green Technology?" *Green Technology*. 2006 <<http://www.green-technology.org/what.htm>>