A Good Response

Introduction

In response to increasing evidence that the accelerated rate of climate change is human induced, it is imperative to view the issue as a reflection, and a consequence of the way human actions have impacted the Earth. Environmental health has been disregarded in lieu of economic prosperity, and we are now faced with rising sea level, increased storm intensity and frequency, severe droughts, wildfires, and loss of biodiversity. When assessing the response strategy adopted by any certain country, at this point in time, what is a "good" or "noble" response is undefined, and the consequences of the actions of the responses are also unknown; the expectations, financial, and social risks are all very high. The United States has proven a commitment of protecting the environment through the formation of the Presidential Climate Action Plan, international treaties, and programs like the Environmental Protection Agency and the U.S. Agency for International Development which all include aspects to decrease the effects of global climate change. By outlining just a few of the ways the U.S. has taken action to reduce pollution and ensure environmental quality, this paper will provide a brief glimpse of the what it takes for a country to fulfill the challenge of combating climate change to ensure a thriving Earth in the future.

Presidential Response

In June of 2013, the Executive Office of the President released President Barack Obama's Climate Action Plan. The action plan contains three key pillars: the first is to cut carbon pollution in America, second is to prepare the United States for the impact of climate change, and the third is to lead international efforts to combat global climate change and prepare for its impacts (EOP). To cut carbon pollution in America, under the first pillar of action, the Obama administration will work with states, local communities, and the private sector to meet a goal of reducing greenhouse gas emissions by 17 percent below the 2005 levels by 2020 (EOP). The steps outlined to reach this goal include deploying clean energy, building a twenty-first century transportation sector, cutting energy wastes in homes, businesses, and factories, reducing other greenhouse gas emissions, and by taking the lead at the federal level. To ensure success, we have to find ways to protect our forests, invest in clean energy, and to upgrade the electric grid.

Some impacts of climate change are already inevitable, and in order to prepare for the impacts of climate change, the second pillar outlines three key initiatives: building stronger and safer communities and infrastructure, protecting the U.S. economy and its natural resources, and to use sound science to manage climate impacts. These initiates aim to protect agriculture, reduce the risk of wildfires, respond to droughts, and provide financial support to develop research programs. In 2009, the Obama administration also established the Interagency Climate Change Adaptation Task Force, which recommends actions for federal policy changes to help strengthen America's resilience to the impacts associated with climate change (EOP).

The third pillar of the climate action plan describes how the U.S. will lead international efforts to address global climate change. The outline aims to work with other

countries to enhance multilateral engagement with other major economies, reduce deforestation and forest degradation, expand clean energy use, negotiate global free trade in environmental goods and services, mobilize climate finance, and address climate change through international negotiations (EOP). This third pillar is probably the most important part of the climate action plan because successful response to climate change requires international collaboration and commitment. When countries work together, challenges and expectations are more likely to be met by sharing ideas and resources.

Environmental Treaties

A treaty is an agreement between two or more countries creating a pact usually regarding peace, alliance, commerce, or international relations (Dictionary). There are eleven key environmental treaties the U.S. has entered into beginning more than fifty years ago. The treaties range from decreasing the chances of oil spills in the oceans by tankers, to desertification and protection of biodiversity. In 1979, the Convention on Long-Range *Transboundary Air Pollution* was the first atmospheric treaty the U.S. ratified. As the title infers, the treaty focuses on reducing the amount of air pollution that is discharged at long range and crosses international boarders (IIP). This agreement has played an important role in establishing international laws that serve to protect the environment and human health. The reason this treaty is now an even more important international agreement is that although unknowingly at the time of inception, aerosol particulates in the atmosphere are now known to reflect solar radiation, which causes the Earth to cool. The negative consequences of this phenomenon have been witnessed after massive volcanic eruptions that caused extensive crop failure. The primarily focus of this treaty is on international aquatic and human health issues, but it also reduces the cooling affect aerosols have when injected into the atmosphere.

1992 was the year that jumpstarted a cohesive international climate change response. The *United Nations Framework Convention on Climate Change* was one of two environmental conventions the U.S. signed at the Earth Summit in Rio de Janeiro, where 172 governments gathered to implement environmental pacts (Earth Summit). The main objective of this treaty was to stabilize greenhouse gasses at a level that would allow ecosystems to adapt to climate change naturally. This treaty recognized that greenhouse gas emissions were human induced, a global problem, and that all nations needed to work together by sharing information, and creating mitigation and adaptation plans. Food productivity and sustainable economic development were also emphasized in the agreement (UNFCCC).

Environmental Protection Agency

The United States Environmental Protection Agency (EPA) began in 1970 with a mission to protect human health and the environment (EPA). The agency oversees the Clean Air Act that was signed in to law in 1970, and was amended in 1990 with more strict standards. The laws enforce air pollution control by regulating motor vehicle emissions, phasing out ozone depletion chemicals, reducing air toxins, and also reducing the potential for acid rain by lowering sulfur-dioxide emissions from power plants (EPA).

The EPA is now involved in a number of other measures addressing climate change in a more direct manner. The agency tracks and publishes data on greenhouse gas

emissions, has established regulatory initiaives including a renewable fuel standard program, established carbon pollution standards for power plants, created a greenhouse gas reporting program, and established oil and natural gas air pollution standards (EPA). The EPA also conducts economic analysis and measures the effectiveness of climate policies, conduct research that contributes to the U.S. Global Change Research Program and the Intergovernmental Panel on Climate Change, and establishes international partnerships to provide leadership and technical expertise for activities that reduce greenhouse gas emissions. Further, the EPA is invested in providing support to state, local, and tribal governments and communities regarding prevention, preparation, and adaptation on climate change issues (EPA). The extent of the responsibility this agency carries regarding climate change response is outstanding. From auto emissions to international partnerships, this agency has proven to be an integral part of the United States' commitment to reducing climate change.

USAID

The United States Agency for International Development (USAID) was created in 1961 under President John F. Kennedy. The agency administers aid to foreign countries to promote social and economic development. The mission of USAID is to cultivate sustainable development and empower and support nations through collaboration with countries that seek assistance (USAID). In 2012, USAID developed a *Global Climate Change and Development Strategy Plan* (GCCDSP) that defines a set of principles and objectives for climate change assistance through 2016. There are three main objectives developed for the plan: adaptation seeks to build resilience to climate change, integration takes the role of development programs that ensure all activities include climate change resilience, and mitigation works to slow or cut carbon emissions while continuing sustainable development (USAID).

USAID has established two flagship programs through the GCCDSP to work with developing countries in battling climate change. The *Tropical Rainforest Alliance 2020* is a program aimed to curb tropical deforestation associated with production of food and paper goods commodities. USAID has partnered with country governments, businesses, civil society organizations, and the Consumer Goods Forum to involve more than 400 companies and governments in the program. Because there are about 300 million people worldwide live in forests, and the livelihoods of about 1.2 billion people are dependent on forests, this program is inherent to the lives of those who depend on the sustainable use of tropical forests (USAID). Deforestation is directly related to climate change in two ways; one is from the machinery that is used in the physical destruction and shipment of the timber, and two is the reduced capacity for the forest to capture carbon dioxide during photosynthesis.

The second flagship program, *Enhancing Capacity for Low Emission Development Strategies* (EC-LEDS), which partners with more than 20 developing countries, aims to implement development based on sustainable land-use and clean energy (USAID). This program focuses on growth in agriculture, transportation, and industry sectors. Implementation of these sustainable systems in developing countries are especially important because the costs associated with building a system from the ground up, which are going to be expensive regardless, but once there is a system in place, people are less

likely to invest in different equipment. The auto industry and the energy sector are great examples of systems that are very expensive to replace once established.

USAID is involved with many other international climate change programs: *SilvaCarbon* manages tropical forests and terrestrial carbon, the *Central Africa Regional Program for the Environment* (CARPE) to build natural resources management, *BIOREDD+* seeks to protect natural resources and promote regeneration of degraded tropical forests, and the *Forest Carbon Markets and Communities program* (FCMC) that develops trainings and support for technical, social, environmental, and financial aspects of the REDD+ program (USAID).

Conclusion

When reading the background information on the United Nations Framework Convention on Climate Change, the document said that by recognizing that there was a problem, "it bound member states to act in the interests of human safety even in the face of scientific uncertainty." This statement ties directly into what should be expected of countries, and what I consider to be a noble response. I believe firmly that there must be actions taken to control greenhouse gas emissions and to protect the environment, and that we should choose to take the financial risks in order to try to make a better future for all living things on Earth. The United States has a long way to go to accomplish the goals it has set in regard to climate change response, but it is on the right track by considering the big picture of how we got to where we are, and taking steps to change the future, not only for Americans, but for all people. There is not one certain action that will slow climate change, and the U.S. has shown a commitment to environmental protection through the signing of multiple treaties, the goals outlined in the Presidential Climate Action Plan, and efforts made by the EPA and USAID to promote sustainable and efficient national and international developments. A dynamic approach to the climate change issue, viewing the environment as a whole system, and not treating carbon dioxide emissions as a binary action that is separate from the overall status of environmental quality, is the only way to achieve success in reducing the effects of climate change. In my opinion, the United States has invoked a good response to the challenge of combating global climate change.

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