

Testimony of

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before the

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"Preparing for Copenhagen: How Developing Countries are Fighting Climate Change."

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#### Introduction

Chairman Markey, Ranking Member Sensenbrenner, Members of the Committee: On behalf of World Wildlife Fund (WWF), I am pleased to present testimony to this committee. First, let me commend the Chairman and the Select Committee for its important work in bringing muchneeded attention within the Congress to so many aspects of climate change. The many hearings held by this committee puts the Congress and the United States as a whole in a much better position to support the domestic legislation and international agreements necessary to respond to this global crisis. So thank you for your important leadership.

As the Congress works with renewed vigor on the critical question of how to construct a domestic framework to reduce emissions within the United States, it is vital that we also remain focused on the need to work together with other nations, particularly developing countries and emerging economies, to produce a framework that ensures that global emissions hit their peak and begin to decline within the decade in order to limit overall temperature increase to below 2 degrees centigrade above pre-industrial levels. The impacts of climate change ignore our political borders; only a global solution will protect the people of the United States and all the nations of the world from the worst effects of climate change.

Conventional wisdom in Washington says that developing countries do not take climate change seriously, that emerging economies are not taking steps to reduce their emissions, and that these countries are an obstacle to reaching a new global agreement to stop climate change. Today, nothing could be further from the truth. Although it has become rare in these difficult times, I am here with good news: Developing countries 'get' climate change and they are taking action to reduce their emissions while constructively leading in the international negotiations.

But let's be clear, just as we are, developing countries are grappling with how best to meet the near-term energy needs of their growing populations, while also responding to the threats of climate change. And this is a much greater challenge for them than it is for us. Even the largest of these countries are poor and struggling by any measure we would use in the United States. For example, approximately 85% of the population of India lives on less than \$2/day. This represents three times more people than the entire population of the US. And while their overall economies have grown in recent years, their gross domestic products are partially a function of very large populations, masking deep poverty. In truth, nearly half of the world's abject poor (living on less than \$1/day) live in China and India alone; none live here in the United States.

Faced with these challenges, developing countries continue to struggle with how best to reduce emissions while responding to crushing poverty. They have not always succeeded in their attempts to reduce emissions and they are not in a position to make all of the necessary reductions on their own. This is no surprise. Emissions in the developing world continue to grow at a faster rate than in the industrialized world. This is also not a surprise. Many in the developing world are only now gaining access electricity and they understandably aspire to more of the basic conveniences that we take for granted. Moreover, as the world economy has become increasingly globalized, much of our demand for emission-intensive products, like beef, aluminum, lumber and cement is shifting to the developing world and along with the associated emissions.

What is a surprise, however, at least to some, is that these countries are doing a better job than the United States in taking ambitious action to reduce emissions, while leading the conversation on a new international climate agreement. These nations realize that future economic prosperity lies at the end of the road to a low-carbon economy. They hope to gain a competitive advantage in this new economy by acting now. And they have seen the early impacts of climate change on their people and their economies and realize there is no time to lose.

#### World Wildlife Fund – A Global and Historical View

With operations in 100 countries and experience that stretches for nearly half a century, WWF has the geographic scope and historical perspective necessary to speak to past and current developing country actions and attitudes toward climate change. Since the late 1980's we have been working with local communities, governments, scientists, and businesses around the world to advocate for climate change solutions that will make the world cleaner, healthier, and safer. WWF's positions and perspectives on climate change are informed by deep technical expertise, and a global view based on knowledge of the domestic political situation in each relevant country and on-the-ground implementation projects at the local scale.

WWF's perspective is truly global. Our offices in China, India, Brazil, South Africa, Indonesia and elsewhere in the developing world are independent organizations, managed and led by local nationals with deep connections and understanding of their domestic context. On the international stage, WWF has been a mainstay in the climate negotiations as an official observer organization within the UN Framework Convention on Climate Change represented by a multinational delegation representing every major country in the negotiations. It is from this vantage point and with these combined voices that we provide testimony today.

#### International Climate Negotiations: A Changing Landscape

As with most conventional wisdom, the idea that developing countries are reluctant to take action to reduce greenhouse gas (GHG) emissions has some historical basis. By 1994, nearly every country in the world – including the United States – signed and ratified the UN Framework Convention on Climate Change (UNFCCC). Under that agreement, industrialized nations agreed to make commitments to reduce GHG emissions before any developing countries based on the recognition that industrialized country emissions were responsible for the lion's share of climate change.

Throughout much of the 1990s and into this decade, developing countries held fast to this bargain. Many, including China, argued strongly that they would take no action to reduce their emissions until after the United States – the world's largest historical emitter and the world's largest economy – took action. And so began over a decade of finger-pointing and strong rhetoric. For example, in 1997, a member of the Chinese delegation made clear that, at that time, China opposed making any emissions reductions. He said: "The position of the G-77 and China is clear -- no new commitments in whatever guise or disguise... [Developed countries] have to pay to the Earth the debt they owed since the Industrial Revolution."

And while this debate raged, emissions grew. Since 1995, U.S. emissions have increased approximately 14%. And although its emissions per capita remain quite low (99<sup>th</sup> in the world), in absolute terms, China now is the world's largest emitter of carbon dioxide (CO2). Most importantly, our global emissions have continued to increase.

Overall emissions within these major emerging economies continue to grow at a faster rate than in the developed world and much of that is due to the globalization of trade. Today a larger and larger percentage of the emissions associated with the products we buy and the food we eat are generated outside of the United States. We continue to be a great driver for these emissions, but they are occurring overseas in developing countries.

### Why Have Developing Countries Decided To Act?

Just as in the United States, the last few years have brought much greater awareness within the developing world of the great risks of climate change and, most importantly, how quickly the impacts would be upon us. As the evidence mounts that climate change resulting from human activity is well underway and that it is accelerating, developing countries have realized (more quickly than the United States, I'm disappointed to say) that the time for posturing is over, and the time for action has arrived. As importantly, developing countries have begun to understand that future economic prosperity will depend on investments in a clean, modern energy economy.

#### **Seeing The Impacts**

The ten warmest years on record have been 1997 through 2008 and during that time, the Intergovernmental Panel on Climate Change (IPCC) issued its third and fourth assessments (in 2001 and 2007). The fourth IPCC assessment report said that "warming is unequivocal" and that most of the observed increase in global average temperatures since the mid-20th century is very likely due to the buildup of greenhouse gases in the atmosphere resulting from human activity. The assessment also concluded that "[o]bservational evidence from all continents and most oceans shows that many natural systems are being affected by regional climate changes, particularly temperature increases."

The IPCC reports made clear that evidence of impacts from climate change on people and their activities is mounting for every region and more disruptive impacts are likely during the course of this century, including in the developing world. For example, the IPCC found:

- In Latin America, food security is likely to be jeopardized by declining productivity of key crops and livestock.
- Agricultural production could be "severely compromised" in many parts of Africa
- More than a billion people in Asia could be adversely affected by decreased freshwater availability

In the two years since the Fourth IPCC Assessment report was released, worrisome evidence has accumulated that climate changes will be larger and faster than the IPCC suggested in 2007.

A second factor motivating developing countries to respond to the threat of climate change is the fact that they already are experiencing climate change and its impacts. According to the IPCC, widespread changes have been observed in average temperatures, precipitation amounts, wind patterns and in extreme events such as droughts, heavy rains, heat waves and the intense tropical storms. These conditions – and their consequences – tend to intensify concerns about climate change and to stimulate efforts to respond to it. As President Obama's science adviser, John Holdren, said in his confirmation hearing several weeks ago, "the major developing country emitters like China and India have recognized that climate change is already harming them and it can't be fixed without them."

In China, for example, the worst drought in a half century is being experienced in eight provinces since November 2008, prompting China to declare its highest level of emergency in early February. Drinking water for over 4 million people has been affected, along with more than 24 million acres of cropland. In June and July 2007, it was the opposite extreme with devastating floods and landslides affecting seven provinces. When warm temperatures came early to China this year – with Nanjing experiencing the highest temperature in a century for the date – the chief forecaster for the Chinese National Meteorological Center (NMC) said "Spring has come early in some areas of East and Central China this year, and it's because of global warming,"

As we begin to see the impacts of climate change in the U.S., including extended drought patterns and wildfire seasons, some have asked whether it might be better to just accept climate change and pay to respond to the coming damage. For all nations, the economic impacts from climate change will likely soon outstrip any ability to simply pay for the impacts after-the-fact. But for poorer developing countries thinking about climate change in this way is not an option. These countries suffer from greater vulnerability to the effects of climate change due to their heavy dependence on natural systems and agriculture for subsistence. Moreover, they have limited capacity to respond and adapt to climate change given their limited financial resources. For nations with populations living at a subsistence level, even modest amounts of climate change are enough to risk crop failures, food shortages and loss of key water supplies. And for many developing countries, particularly small, island developing states, climate change poses a threat to their cultural survival. Wait-and-see is not an option.

# Seeing The Opportunities

The impacts and the evidence of climate change do not tell the whole story of the turnaround by developing countries. Some of the answer comes from a basic recognition that reducing energy and reducing emissions is good for their economic prosperity. As we are beginning to understand in the United States, making short term investments in energy efficiency and modern technology results in reduced energy costs over the long term, more local jobs, and long-term economic growth. Countries just beginning to industrialize are looking to leapfrog our older, polluting approach in favor of newer, cleaner energy.

Moreover, the volatility of the price of foreign energy supplies such as oil and gas, have taught all countries the hard lessons of energy security. Dramatic swings in energy prices are especially problematic for poorer nations with fewer financial reserves. As a result home-grown energy supplies, starting with energy efficiency and including renewable power, offer a much firmer long-term foundation on which to build an emerging economy. At a time of greater economic uncertainty, wise investments in a sound economic future are more important than ever. (Of course, this is as true for the United States as any country. With Europe and the developing world beginning to lead on the new energy economy, the U.S. will continue to find itself at a competitive disadvantage.)

These concepts have become more greatly understood within the developing world; governments have instituted policies and the market place has responded. In some cases, emerging economies have learned these lessons better than we have. For example, a report issued last week by HSBC Global Research evaluated the economic stimulus plans implemented by various governments. Although in the United States the American Recovery and Reinvestment Act was rightly praised as including important investments in energy efficiency and renewable power, the U.S. stimulus act devoted only 12% of its funding for "investments consistent with a low carbon economy." Using the same criteria, China's stimulus plan was over three times more oriented towards promoting a low carbon economy (38%), while investing more money in these sectors in absolute terms.<sup>1</sup>

### **Developing Countries Are Taking Action**

Whatever the motivations, the results are clear: In both the international negotiations and through action taken at home to reduce emissions, developing country governments have stepped down from the absolute demand that countries like the United States must act first to respond to climate change. They understand it is in their economic and national interest to stop waiting and

<sup>&</sup>lt;sup>1</sup> A Climate for Recovery: The Color of Stimulus Goes Green, HSBC Global Research (25 Feb. 2009) at 2.

move ahead. They are putting concrete proposals for mitigation on the table in the international negotiations, taking a constructive approach to climate and energy issues in bilateral and multilateral venues, and taking unilateral action to reduce greenhouse gas emissions at home.

# **Political Leadership**

Despite bearing relatively little responsibility for the current impacts of climate change, emerging economies have determined that it is in their self interest to be part of the solution. In advance of the UNFCCC negotiations last December in Poznan, several key emerging economies offered comprehensive proposals to reduce their emissions, which included specific targets and timetables. Together with other recently-announced plans, these proposals marked a sea change in the international debate, breaking the log-jam of the previous decade where developing countries had refused to propose action until the United States made commitments to reduce emissions.

These proposals in many cases went beyond what we have been able to achieve in the United States and clearly indicate the leadership and firm commitment of developing counties to shift to low carbon economies. For example:

- South Africa established a plan that would halt its projected increase in emissions and produce a "peak and decline", a critical step towards changing the trajectory of future emissions towards stabilization a step we hope the United States will take during this Congress. For South Africa, a country highly dependent on energy from coal, their peak and decline date of 2015-2020 was particularly ambitious.
- Mexico established an economy-wide plan to cut its projected emission *in half* by 2050 to be implemented through a cap-and-trade program.
- Brazil committed to reduce annual deforestation by 70% by 2018. Deforestation is the largest source of emissions in Brazil, and when deforestation is included, Brazil is one of the world's top emitters making this target a significant step towards meeting global emissions trajectories that reduce the greatest impacts of climate change.
- India has committed to an economy-wide 20% increase in energy efficiency by 2016, while continuing its renewable energy program, one of the largest in the world.
- China has committed to reduce energy intensity of its economy by 20% by 2010, as well as an aggressive target to produce 10% of its primary energy through renewable sources by 2010 and 15% by 2020.

### Mitigation Efforts Underway

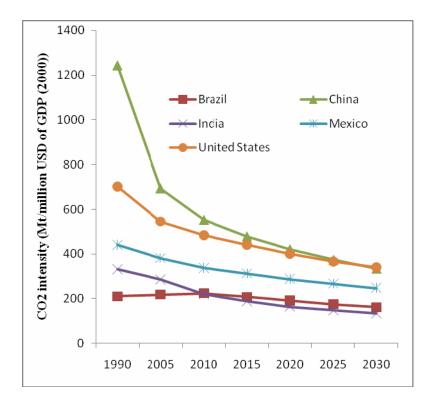
The seriousness with which these key nations have undertaken planning and targeting to reduce emissions is a significant step forward by itself. It has demonstrated recognition of the threat of climate change and an interest in transforming their economies towards a low carbon path, even where that would require new and significant changes. But actions by emerging economies have gone beyond aggressive planning to actual emissions reduction against business-as-usual pathways. By studying indicators of progress in the energy sector, it is clear that developing countries have made notable advances. In two areas, the emissions intensity of economies and the use of renewable power, developing countries progress is equivalent to or exceeding progress in the United States.

### **Reducing Emissions Intensity**

The carbon emissions intensity of an economy is expressed by the level of emissions per unit of economic output. This is a composite indicator determined by the combination of energy intensity and the fuel mix in a particular country. Emissions intensity levels are not linked to the size of a country's economy or population; a large or wealthy country may have a low GHG intensity or vice-versa. So this metric has greater policy relevance than absolute emissions. In other words, emissions intensity allows us to compare a country like India with nearly 1.2 billion people with a country like the United States with nearly 75% fewer people.

Let's be clear: simply reducing the emissions intensity of our economies is not enough. We must reduce the absolute levels of global emissions by at least 80% below 1990 levels by 2050 in order to reduce the greatest risk of dangerous climate change. Comparing the current carbon emissions intensity of various economies, however, demonstrates a nation's trend towards decarbonizing their economy (switching energy to lower carbon fuels, improving energy efficiencies, and/or restructuring economic activities). And so, this can be a useful way to compare how various nations are progressing towards a goal of absolute emissions reductions.

#### Figure 1: Carbon Emissions Intensity of Selected Economies



Source: Adapted from EIA Report#: DOE/EIA 0484-2008, Table 13.

Data from the International Energy Agency (IEA) show that China, India and Mexico have made good progress in de-carbonizing their economies (Figure 1), thus reducing emissions quite significantly for each unit of economic activity. In the United States, the de-carbonizing of the economy has been attributed greatly to the movement of higher-emitting sectors to the developing world. In the developing world, reducing the carbon intensity of the economy demonstrates, not the changing of industries, but the movement towards more modern, more efficient use of energy.

This movement is important and shows that policies being implemented by emerging economies are already working, resulting in real emissions reductions. For example, India has reduced the carbon intensity of its economy by over 35% since 1990. This reduction is related to India maintaining sustainable consumption patterns and enacting proactive policies to promote energy efficiency.

The reduction in the carbon intensity of the Chinese economy during this period has been even more dramatic (see figure 1). Since 1990, China has achieved remarkable energy efficiency. In 1990, the carbon intensity of the Chinese economy was about 1200Mt per unit of GDP; by 2005 that had been cut in half. Under its current 5 year plan, China has included a requirement to reduce the emissions intensity of its economy by an additional 20% below 2005 levels by 2010. If reached, this goal is estimated to reduce Chinese emissions by an additional 10% below

business as usual levels.<sup>2</sup> China is making substantial progress toward this goal, reducing emissions intensity in the past three years by: 1.6% in 2006, 3.7% in 2007 and 4.3% in 2008. Although on pace to fall a bit short of this target, the ambition level and progress toward success are important steps indeed.

These improvements demonstrate the greatest reduction in emissions intensity of any major economy during the period and put China on track to match the emissions intensity of the United States in the near term. Although the decline in emissions intensity for China is not as fast as needed to offset China's rapid growth in energy consumption, the trend indicates a high prospect for China's transition to low carbon economy in the middle of the century. It also demonstrates the seriousness and effectiveness of Chinese policies to reduce emissions.

# **Renewable Energy Standards**

As President Obama stated in his address to the nation on February 25th, "We know the country that harnesses the power of clean, renewable energy will lead the 21st century." Many key emerging economies apparently got the message long ago. One strong indicator of a commitment to low carbon energy is adopting a renewable energy standard (RES) and associated policies.

There are several forms of RES, including requiring an increase in total power generation capacity from renewable sources, an increase in the share of renewable energy in the primary energy supply, an increase in the share of electricity generated from renewable sources and an increase in the share of total energy consumption produced from renewable sources. Different developing countries have chosen various RES mechanisms (with some, like China, implementing many of these approaches simultaneously). In whatever form, an RES indicates a country's seriousness in replacing high-carbon fuels with ones that produce zero emissions. A successful RES reflects real emissions reductions below a business-as-usual case.

During the past several years, as the United States has debated whether to adopt any form of a renewable energy standard, Brazil, India, China, Mexico and other developing countries have begun implementing them with success (see Table 1):

- <u>China</u>: China has established an RES requiring 10% of its primary energy to be produced from renewable sources by 2010 and 15% by 2020. By 2006, 8% of its primary energy came from renewable sources and China is expected to meet these targets.
- <u>Mexico</u>: Mexico proposed a RES of 8% of electricity from renewable sources (excluding large hydro) by 2012. The Ministry of Energy has announced that the country is on track to meet that standard, driven mainly by installing wind power projects in the State of Oaxaca, which has an estimated wind power potential of over 10,000 MW.

<sup>&</sup>lt;sup>2</sup> Climate Change Mitigation Measures in the People's Republic of China, Pew Center on Global Climate Change (April 2007)

- <u>Brazil</u>: Reflecting the highest percentage of renewable energy in the world, 46% of Brazil's primary energy comes from renewable sources, while over 75% of its electricity is produced from renewables. Brazil's high renewable share is largely driven by large hydro-electric facilities. Recognizing the need to shift to solar, wind, geothermal and small hydro, Brazil has implemented a RES of 15% from these sources by 2020.
- <u>India</u>: India has the 4<sup>th</sup> largest amount of installed wind power generating capacity in the world. In 2009, renewable energy power accounted for 8% of total power generation capacity in India; the country should meet and exceed its 10% RES by 2012. This success is a result of strong incentives from the government for enhancing renewable energy production capacity and power generation and the development of a framework for trading renewable energy certificates.
- <u>Philippines</u>: Another key developing country, the Philippines has the largest renewable target in the world, with a goal of producing 50% of its electricity from renewable sources by 2020. Philippines is currently the world's second largest producer of geothermal power and overall currently produces 33% of its energy from renewable sources.

| Country     | Renewable target         | Progress   |
|-------------|--------------------------|--|
| India       | 10% by 2012 <sup>1</sup> | India is on track to meet or exceed its<br>renewable energy target, having already<br>achieved 8% in 2009 <sup>1.</sup>  |
| Philippines | 50% by 2020 <sup>1</sup> | Philippines is on track to achieve its<br>target, and currently has 33% renewable<br>energy in its power generation mix.   |
| Brazil      | 15% by 2020 <sup>2</sup> | Brazil's share of primary energy from<br>renewables is currently 46%, among the<br>highest in the world, relying heavily on<br>large-scale hydro-electrical generation.<br>This RES is focused on expanding wind,<br>small hydro, and solar production from<br>current levels of less than 4%. |
| Mexico      | 8% by 2012 <sup>3</sup>  | Mexico's Ministry of Energy expects to<br>reach the country's goals, driven largely<br>by new wind power projects in the State   |

### Table 1: Illustrative renewable energy targets implemented in developing countries<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Data primarily adapted from Renewables 2007: Global Status Report, REN21:Renewable Energy Policy Network for the 21<sup>st</sup> Century (2007).

|       |   | of Oaxaca  |
|-------|---|--|
| China | 10% by 2010 and 15%<br>by 2020 <sup>4</sup> | By 2006 China had achieved 8% of its<br>primary energy production from<br>renewable energy, and is now scaling up<br>wind and solar to meet these goals.   |
| US    | No National<br>Renewable Target             | A nationwide target is under discussion in<br>both the House and the Senate. Current<br>US percentage of electricity from<br>renewables (not including large hydro-<br>electric) is approximately 5% (2006). |

1-Percent of total power generation in the country from renewable energy

- 2- Percent increase in the share of renewable energy in the primary energy supply
- 3- Percent of renewable electricity generation excluding large hydro
- 4- Percent of renewable energy in the primary energy supply

## Brazil: An Example of Leadership

As discussed, many developing countries are showing leadership in both the climate negotiations and by beginning to reduce their own emissions at home. Because one of the other panelists will focus specifically on China, this testimony will highlight another of these countries: Brazil. Brazil is the world's fifth-most populous country and the world's tenth-largest economy in GDP terms. When viewed at a human scale, however, the Brazilian economy is not as strong: in GDP per capita (PPP), Brazil ranks 82<sup>nd</sup> in the world.

Although no country has a perfect record in responding to climate change, Brazil has become a leader in reducing the emissions intensity of its economy, in generating renewable power and, perhaps most importantly, in seriously addressing emissions related to deforestation. As previous sections of this testimony discussed the first two of these, this section will discuss the third.

Although often forgotten as a major source of greenhouse gas emissions, deforestation is actually the second largest source of emissions by sector, producing approximately 20% of global emissions – more than every car, truck, plane, train and boat on the planet. In the developing world, deforestation-related emissions constitute an even larger share of the total. For example, when deforestation-related emissions are included, Brazil ranks 7<sup>th</sup> in the world in absolute emissions, despite producing nearly 50% of its electricity from sources that do not emit GHGs. These high emissions are largely associated with deforestation, which accounts for about 75% of the country's emissions.

Reducing emissions from deforestation in a lasting way requires substantial upfront investment in building monitoring capacity, improving measuring and accounting systems, engaging in extensive land tenure reforms to ensure that local landowners are properly compensated and increasing investment in law enforcement. These kinds of investments in a national program demonstrate a commitment to ensure that forest programs result in reduced GHG emissions. Absent this type of investment, project-level deforestation reduction activities may not provide reliable benefits to the climate.

The required investment is substantial, but the government of Brazil has committed to building this capacity to reduce deforestation-related emissions, including:

- Establishing 148 protected areas covering 620,000 km2 from 2003-2007. Many of these new protected areas are located in zones under high deforestation pressure.
- Developing and implementing one of the most sophisticated forest change tracking systems in the world, based on remote sensing methods and linked in to land management databases in state-level governments. This system is so widely regarded that it is being made available to other governments.
- Stepped-up enforcement against illegal logging, deforestation and other environmental crimes.
- Prohibiting financing for landholders without clear tenure or in breach of environmental laws.
- Accelerated land reform to establish clear tenure rights in areas subject to intensive social conflict.
- Developing a legal framework for forestry concessions in public forests.

These efforts have helped substantially reduce deforestation in the Brazilian Amazon by 56% in since 2004. This alone represents a decrease of <u>1.3 billion tons of CO2 emissions</u> in relation to the previous 4-year period, or nearly 20% of the U.S.'s current annual emissions of CO2-e (7.0 billion tons in 2006). Building on these actual reductions, in December the Brazilian government announced a new target of reducing deforestation by 70% below 2006 levels by 2017. This would avoid <u>4.8 billion tons of CO2 emissions</u> – equivalent to over two-thirds of current annual emissions in the United States.

Meeting this new, ambitious goal will not be easy and Brazil cannot do it alone. But its commitment to making the necessary early investments and continuing to press for even greater reductions shows Brazil to be a leader. And it further helps to replace the old conventional wisdom about developing countries with a new reality: these nations are taking action and looking to partner with the rest of the world to do even more.

### **Conclusion**

For over a decade, the United States has failed to take serious action to address climate change because of the perception that major emerging economies were not acting to reduce their own emissions. This justification for inaction was always flawed, as it ignored the seriousness of the problem, our historical responsibility, our commitments made under the UNFCCC and the power of American leadership. But flawed or not, today it is gone. Developing countries, in particular the major emerging economies, are taking action to reduce their emissions, even in the absence of U.S. leadership and action. We must quickly follow suit.

These actions are but the first important steps on a long journey. Due to increasing populations and the beginning of industrialization, emissions trends indicate that the majority of new emissions will be produced in the developing world in the coming decades. As they grapple with both climate change and desperate poverty, developing countries will need our help to fully make the transition towards low-carbon economies. Based on our historical responsibility for the climate crisis and our greater economic capacity, this help is justified.

As domestic cap-and-trade legislation is designed and debated within the Congress, it is important to keep this international context in mind. Climate change is a global problem and its impacts can only be slowed through a global response. In addition to helping middle- and lowincome Americans transition to a clean energy future, some revenues from a cap-and-trade system are needed to provide predictable finance for emissions reductions and adaptation needs within the developing world. Only by helping developing countries continue to move toward low carbon pathways and reducing emissions from tropical deforestation, can we bring global emissions under control. Importantly, this is not a zero sum game. Improving the global market for clean energy technologies will help spur greater advancements throughout the industry, which will also help the transition to low-carbon pathway in the United States.

Their recent actions show that these emerging economies will be good partners in this global effort. They have demonstrated their serious commitment to addressing climate change and have sent a strong message to the world that they are ready for a new era of international cooperation. They have taken actions and developed plans to begin to decouple their economic growth from their greenhouse gas emissions, so that they can grow sustainably without disrupting the climate system.

The United States should follow their example and begin to assume responsible leadership both at home and abroad to address the climate crisis.