

**A World Price for Carbon:  
A Necessary Condition for an Effective Global Climate Agreement**

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In the following text, I will demonstrate three things. First, that humankind is losing the battle against human-induced climate change, the impacts of which are being particularly felt in the Arctic. Second, that the current negotiations are very unlikely to result in the international climate agreement we need to redress the situation. Third, that the way to redirect these negotiations in the right direction would be to introduce into these international discussions the negotiation of a global, harmonized price for the leading greenhouse gas: carbon dioxide (CO<sub>2</sub>).

I am well placed to know that such an agreement will be very difficult to achieve. As Leader of the Liberal Party of Canada in the 2008 election, I was unable to convince Canadians of the need for a made-in-Canada carbon price. Yet I will propose that if we fail to reach a global agreement on a price for CO<sub>2</sub> emissions, we are inexorably headed towards the catastrophic impacts of an excessively warmer climate.

### **The planet is heating up**

The planet is warming up, and warnings are coming from every quarter. The combined global land and ocean average surface temperature for the January–December 2014 period was ["the warmest such period on record."](#) The atmospheric concentration of carbon dioxide is also increasing, rising last year at the fastest rate for nearly 30 years.

Despite the efforts made to limit CO<sub>2</sub> emissions, they are growing at an increasingly rapid pace. [Annual GHG \(greenhouse gases\) emissions](#) grew on average by 2.2% per year from 2000 to 2010, compared to 1.3% per year from 1970 to 2000. In 2014, [total annual CO<sub>2</sub> emissions](#) rose to 65 percent over its 1990 level—the year international negotiations on the reduction of anthropogenic climate change began.

The negative impacts of global warming are being felt in many areas. The World Wide Fund for Nature (WWF) found climate change to be responsible for seven percent of the decline in the number of vertebrate species, whose population size has been reduced by half in the last forty years. After overexploitation and habitat loss, [climate change is the third most important threat to species survival.](#)

The impact is particularly clear in the [Arctic](#), where warming is potentially more destructive than in any other region. In this part of the world, the thawing permafrost will increasingly affect the stability of vital infrastructure—buildings, transportation, communications, energy, etc. A decline in certain types of vegetation will disrupt the food chain. Marine fish stocks could be strongly affected by changes in sea surface temperatures or currents. Problems caused by invasive insects and plants, diseases and forest fires are likely to worsen. It has already been observed that polar bears, seals, walrus and other Arctic animals are being affected by the melting of sea ice, which they depend on for survival. This also implicates that the Northern

human communities that depend on these ecosystems for their food, culture and lifestyle will also be affected.

Although the Arctic is particularly affected, the impact does not stop there; global warming could reach dangerous levels everywhere on the planet. Climate scientists have agreed that it would be imprudent to allow global warming to exceed an average of two degrees Celsius (2°C-3.6°F) above pre-industrial levels. They warn that beyond this tipping point, our planet will become much less hospitable for virtually all forms of life, including humans. In fact, even two degrees Celsius above pre-industrial levels is likely to have serious impacts, according to UN-mandated scientists under the Intergovernmental Panel on Climate Change (IPCC).

Without effective action, the two degrees Celsius threshold will be crossed. The global temperature increased by 0.85°C over the period 1880 to 2012. The [IPCC](#) foresees that under current policies, global warming could well exceed four degrees Celsius by the end of the current century: "Baseline scenarios, those without additional mitigation, result in global mean surface temperature increases in 2100 from 3.7°C to 4.8°C compared to pre-industrial levels." [Such a temperature rise would increase climate disruption](#), thereby increasing the severity of extreme weather events, sea level rise, ocean acidification, animal and plant extinctions, disruptions in food production and water supply, and damage to infrastructure and settlements. In working to limit global warming to two degrees Celsius, the IPCC recommends reducing global GHG emissions by 40 to 70 percent by 2050, relative to 2010 emissions. [According to the International Energy Agency \(IEA\)](#), we must reduce energy-related carbon dioxide emissions by 31.4 percent between 2012 and 2035. If no measures are taken to correct the current trend, these emissions will increase by 36.1 percent.

Yet, the question remains: what must we do to counter this climate change hazard?

### **Negotiations on a global climate treaty**

Countries have accepted to endorse the GHG reduction targets (the two degrees Celsius limit) at the 2009 Copenhagen international climate Conference (COP 15), and more officially at the 2010 Cancún Conference (COP 16). Yet, problem remains: despite the commitments already made, countries will not reach these targets. [The Intergovernmental Panel on Climate Change](#) foresees that even if all countries were to meet the greenhouse gas (GHG) emissions reduction targets by the agreed date of 2020 we would still fall short of what is needed.

According to the IEA, the ["New Policies Scenario"](#)—the scenario that incorporates all current country commitments—“puts the world on a path consistent with a long-term global average temperature increase of 3.6°C” compared with pre-industrial levels.

At the 2011 Durban Conference (COP 17), the countries acknowledged the gap between their commitments and achieving the two degrees Celsius objective. In the preamble of their joint statement, they expressed "grave concern" and promised to "raise the level of ambition" to bridge this gap. However, rather than agreeing on a set of actions, they only agreed on a plan to reach an agreement no later than 2015. The actions to assemble all countries under the same legal system will begin in 2020.

At the Lima Conference (COP 20) in December 2014, [the countries reiterated](#) the same "grave concern" about "the significant gap between the aggregate effect of Parties' mitigation pledges" and the goal of holding the increase in global average temperature below the two degrees Celsius limit. In preparation for the crucial 2015 Conference (COP 21), which will be held in Paris, countries have been invited to communicate, as early as the first quarter of 2015, their "intended nationally determined contributions" (INDCs) to the climate agreement. The sum of these national targets will set the course from 2020 to 2030.

The highest GHG emitting Nations have already announced what they intend to pledge. The European Union committed to reduce its greenhouse-gas emissions by 40 percent below 1990 levels by 2030. China said that its emissions would peak by "around" 2030. President Obama pledged to cut US emissions by 26 to 28 percent from the 2005 level by 2025.

At first glance, these announcements, especially the highly applauded joint climate change announcement of President Obama and Premier Xi, are good news considering the stalemate of international climate negotiations. The US-China deal shows that the national leaders of the highest GHG emitting countries have not given up on making progress on this issue. For the first time, China is considering absolute carbon emissions stabilization—if not a reduction—instead of a relative, carbon-per-unit of GDP reduction.

However, these pledges are too weak to be real game changers. Even if these countries will reach their targets, and that other developed countries were to match the US reduction pledge to cut their emissions by 26 to 28 percent by 2025, and that developing countries were to emulate the Chinese commitment to stop increasing emissions by 2030, [we are still on a path of an over three degrees Celsius world](#).

China's commitment to peak its emissions "around" 2030 appears to be in line with the current trend: Before the China-US agreement was released, the IEA foresaw China's emissions ["peaking soon after 2030"](#). Furthermore, that means that China, the largest emitter, will peak its emissions ["higher than in most other regions"](#). Already today, with seven tons per capita of annual CO<sub>2</sub> emissions, China's emissions are equivalent to that of the European Union average. That means that China is very likely to peak its per capita emissions at a much higher level than all major economies besides the United States, Canada and Australia.

It also means that if India and other emerging economies were to adopt similar pledges as China's, their per-capita CO<sub>2</sub> emissions would only peak well after having exceeded the current emission levels of several world major economies.

This scenario is assuming that countries will fulfil their climate commitments. However, [several countries—including Canada](#)—will not meet their GHG emissions reduction targets for 2020. In the United States, the Republican Party has brought up its plan to derail President Obama's pledge. [The EU's established goal](#) of reducing greenhouse-gas emissions by 40 percent for 2030 is supported by only non-binding energy-efficiency and renewable-energy targets. Unless we change our approach significantly, the Paris Conference will not deliver the global treaty that the world needs.

### **The need for a global carbon price**

Governments and businesses are unlikely to realize their climate change goals if they have no definite assurance that their competitors will play by the same rules. To address this stalemate, we need an international agreement that gives them that assurance, one that changes the rules of the game so that they apply to every player. We need to create a system whereby every decision maker, public or private, is responsible for taking into account the true cost of global warming, and is secure in the knowledge that the competitors are doing the same.

This explains why more and more experts agree that putting a price on carbon is essential to the success of any serious, comprehensive climate plan. The [International Monetary Fund now recommends it](#). As does the [OECD](#). [The World Bank](#) convinced 73 countries, 22 subnational jurisdictions and over 1,000 companies and investors to declare their support for a price on carbon. [The Global Commission on the Economy and Climate](#) has also pointed out that a carbon price may be beneficial for the economy.

There are opportunities to explore linkages between carbon pricing and the [new international climate change agreement](#) to be reached in Paris. But the main challenge facing us is how to evolve from a hodge-podge of local or national carbon prices to a global, harmonized carbon pricing system. [IPCC recommends](#) a solution: adopting a "single global carbon price." The price should be high enough to create the necessary incentives to limit global warming to about two degrees Celsius. [The International Energy Agency \(IEA\)](#) recommends that the price of a tonne of CO<sub>2</sub> be gradually raised by 2040, to \$140 for developed countries and \$125 for China, Russia, Brazil and South Africa (in US 2013 dollars). According to the [IEA](#), this can be done without harming economic growth.

It is impossible to reach a global carbon price of \$125 or \$140 per tonne of CO<sub>2</sub> without first having negotiated an international agreement that can assure all economic agents that their

competitors will play by the same climate rules. Indeed, carbon pricing will not reach the desired level as long as individual countries fear that carbon price setting within their respective jurisdictions will scare away businesses and investments send them off to countries where carbon dioxide emissions are cheaper or free of charge.

For some years now, [others](#) and I have been arguing for a readjustment of international climate negotiations. The idea is to refocus these international efforts on negotiating a global, harmonized carbon price signal.

The [Dion-Laurent plan](#) would call for all countries to make a commitment to introduce, in their respective jurisdictions, a gradually evolving carbon price signal based on a scientifically validated international standard, in order for the world to keep global warming to as close as possible to two degrees Celsius over pre-industrial levels. Countries may levy this price through carbon taxes or emission quotas. Governments would be free to invest, as they see fit, any revenues accruing from carbon emission levies and the corresponding—and necessary—gradual elimination of fossil energy subsidies.

In keeping with the principle of "Common But Differentiated Responsibility", developed countries would be required to set aside part of their carbon pricing revenues to help developing countries introduce policies to lower their emissions, adapt to climate change impacts and create carbon sinks (through reforestation, for example). This requirement would help fund the yet insourced \$100 billion annual injection into the Green Climate Fund that was promised to developing countries for 2020 to help them deal with climate change. That amount could even be increased. The contributions of individual developed countries would be set according to the proportion of total developed country emissions that their respective GHG emissions represent. The lower a country's emission level, the lower its share of the financial effort this serves as a further incentive for emission reductions.

This international carbon pricing agreement would allow countries to levy border taxes on products from countries that have not established a carbon price signal in accordance with the international standard. That would be a solution of last resort, to be applied after the usual warnings have been issued. In this manner, it will be in each country's interest to comply with the international agreement, levy a carbon price on its own emissions and use the resulting revenue as it sees fit.

This international agreement would provide the world with an excellent instrument for sustainable development. After decades of international stalemate, carbon emitters would have to acknowledge the conspicuous social and environmental cost of pollution. Consumers and manufacturers would have an incentive to choose lower-carbon-content goods and services and

to invest in new energy saving and emission-reducing technologies. Governments and legislators would have the tool to achieve the scientific climate targets that they have endorsed.

### **Conclusion: Is this plan realistic?**

Negotiating a global harmonized carbon price will be a very difficult task. I am not one to underestimate [the political obstacles any government will face when trying to implement an economy-wide price on GHG emissions](#). As said in my introduction, as Leader of the Official Opposition in the House of Commons of Canada between 2006 and 2008, I had developed such a carbon-pricing plan; I was unable to convince Canadians to accept that approach during the 2008 federal electoral campaign. Today, in the United States, [part of Congress, backed by a majority of the population](#), is opposed to President Obama's initiatives to regulate GHG emissions through the Environmental Protection Agency. And yet, a global carbon price will not be negotiated successfully if North American countries, notably the United States, fail to take a leading role in the matter.

I understand why some would call this plan unrealistic. But this plan is necessary—more so than ever—to protect humankind against the threat of a three degrees Celsius—or more—global warming. Our current initiatives are not without merit but are insufficient. Our world leaders must champion what is needed for a comprehensive and effective climate/energy policy—a worldwide, harmonized carbon price.