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Huge Challenges for Canada after Paris Climate Conference

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"Historic." "A global U-turn." "The enduring framework the world needs to solve the climate crisis." This is how French Foreign Minister Laurent Fabius, UN Secretary General Ban-Ki Moon and U.S. President Barack Obama, respectively, assessed the significance of the Paris Agreement accepted by 195 countries at the UN Conference on Climate Change in December 2015. On the other hand, author Naomi Klein termed the global deal "ambitious but inadequate." Others have condemned it as a "fraud," "a farce," and "deceptive."

Canada in Paris

Prime Minister Justin Trudeau received a round of applause when he declared "Canada is back" at an early plenary session in Paris. Canadian negotiators made genuine efforts to get commitments to human rights, Indigenous rights, gender equality and a just transition for workers into the binding part of the text. Despite their efforts these terms only appear in a non-binding preamble.

Environment and Climate Change Minister Catherine McKenna was an early advocate for the

goal of keeping temperature increases to 1.5°C in the

Agreement. In the end, it included a commitment to keep the rise in global temperatures "well below"

2°C compared to pre-industrial times, while striving to limit them to 1.5 degrees. The inclusion of this more ambitious target is one of the most significant outcomes of the Paris conference.



1.5°C Goal Emblazened on the Eiffel Tower

This Briefing Paper aims at a balanced assessment of the Paris Agreement in Part One and an outline of the challenges for Canada in Part Two.

Part One: What the Agreement Achieved and Where It Falls Short

Two documents were forged at COP 21. The Paris Agreement begins with a non-binding preamble followed by 29 Articles that are legally binding but have no enforcement mechanism. A Decision text containing 140 numbered paragraphs elaborates on the Agreement but is not legally binding.

Below I shall describe 10 important aspects, both achievements and shortcomings, of COP 21.

1. Voluntary Pledges

Prior to the Paris COP, most countries submitted voluntary pledges, known as INDCs (Intended Nationally Determined Contributions), for greenhouse gas (GHG) emission reductions that would come into effect only in 2020. An analysis by [Climate Action Tracker](#) indicates if current policies were to continue unchanged, temperatures would likely rise by 3.6°C or more by the end of the century. If the INDCs are fully implemented, there is only a 50% chance of keeping temperature increases to 2.7°C, significantly above the two-degree target. Steffen Kallbekken, Director of the Centre for International Climate and Energy Policy, notes that “by the time the pledges come into force in 2020, we will probably have used the entire carbon budget consistent with 1.5°C warming.” Yet current pledges are due to be revised only in 2023.

2. Industrial Nations Not Liable for Loss and Damage

Many observers believe industrial nations agreed to include the 1.5-degree target in the Agreement only after the countries most vulnerable to the ravages of climate change agreed that the countries most responsible would be under no obligation to pay compensation for losses and damages. Significant

pre-industrial level. While Article 8 of the Agreement “recognizes the importance of ... addressing loss and damage,” paragraph 52 of the Decision text explicitly says, “Article 8 of the Agreement does not involve or provide a basis for any liability or compensation.”

3. No Specific Date by which Emissions Must Peak

Article 4 states, “Parties aim to reach global peaking of greenhouse gas emissions as soon as possible” without setting a specific date. Scientists from leading climate research institutes have declared that this approach is completely inadequate. They say emissions must begin to decline before the next round of INDCs would take effect only after taking stock of current plans in 2023 and be totally phased out by 2050 to have any hope of staying below 1.5°C.

4. Shipping and Aviation Emissions Omitted

Although GHGs from international shipping and aviation account for around 5% of global emissions, they are not covered by the Paris Agreement. This is a step backward since they were included in the 1997 Kyoto Protocol. Emissions from aviation are expected to double or triple by 2050 and those from shipping to quadruple. Emissions from jet aircraft are particularly harmful because at high altitudes they trigger chemical reactions that are two to four times more damaging than their carbon dioxide emissions alone.

5. Decisions on Financing for Low-Income Countries Deferred to Future COPs

While numerous media reports have stated that developed countries will “provide” developing countries with US\$100 billion per year in financing, the Paris documents refer only to “mobilizing” that

losses are already occurring through severe storms, droughts and rising sea levels as global temperatures are now one degree above their

amount by 2020 and setting a higher goal prior to 2025. The key word is “mobilize” meaning that financing would not come only from the

governments of developed country but also from the private sector and from multilateral financial institutions. In any case, the US\$100 billion target is inadequate as developing countries will need about US\$150 billion per year for adaptation measures and more to cover the costs of converting from dependence on fossil fuels. The task of coming up with clear accounting rules is deferred until COP 24 in 2018.

6. No Reference to Leaving Fossil Fuels in the Ground

The Paris Agreement makes no mention of the need to keep most of the known reserves of oil, natural gas and coal underground, nor is there any reference to the transition to a new energy paradigm. A report from the Intergovernmental Panel on Climate Change (IPCC) indicates that only one-quarter to one-seventh of known fossil fuel reserves could be safely burned if temperature increases are to be kept below two degrees. To contain warming to below 1.5°C, an even larger portion of known reserves must be kept in the ground.

7. No Consideration of a Carbon Tax

When prominent climatologist James Hansen called the Paris talks “a fraud,” he highlighted their failure to recommend taxing carbon dioxide emissions. Hansen, like many other climate justice advocates, maintains that putting a fee or tax on each tonne of GHG emitted would be the most effective way of achieving emission reductions. The former NASA scientist [suggests](#) an initial fee of \$15 per tonne that would rise by \$10 each year, with all of the money collected returned to citizens as dividends. Other advocates of carbon taxes suggest reinvesting some of the funds in conservation and renewable energy while also compensating low-income households.

8. Affirmation of Use of Carbon Markets

While there is no hint that carbon taxes were even discussed in Paris, the alternative of using carbon markets as a mechanism for putting a price on emissions was highly contentious. Some countries strongly opposed any endorsement of carbon trading while others called for its inclusion. After Canadian Environment and Climate Change Minister McKenna was asked to find common

ground, she made it clear that “whether or not the language [of carbon markets] is reflected in the agreement, there will continue to be a role for the markets.” In the end, Article 6 of the Paris Agreement endorses carbon trading under the obscure name of “internationally transferred mitigation outcomes.”

In our *Briefing Paper* No. 42 [Canada Falls Far Short of Pope Francis’ Call for Ecological Justice](#) we elaborate on why Pope Francis says carbon trading “may simply become a ploy for maintaining excessive consumption.” Existing carbon trading schemes have been characterized by speculation, widespread fraud, double counting, and grave human rights violations. Often Indigenous peoples have been forced from their lands to make room for carbon offset projects.

9. Hidden Agenda for Achieving Negative Net Emissions

Obscure references in the Agreement to “removals by sinks of greenhouse gases in the second half of this century” and to enhancing “sinks and reservoirs” of GHGs mask a hidden agenda for another type of carbon trading.

Without using the acronym REDD (Reducing Emissions from Deforestation and Forest Degradation), the Agreement supports UN and World Bank programs that encourage developed countries to earn carbon credits by making payments to developing countries in return for promises to preserve forests. As with other carbon offset schemes mentioned above, projects to earn credits under REDD initiatives have led to the dispossession of peoples from their lands and violations of the rights on Indigenous peoples.

The Agreement also implicitly endorses “biomass energy carbon capture and storage” (BECCS) as a mechanism for removing carbon dioxide from the atmosphere. It involves growing huge amounts of crops to be burned in thermal power stations while capturing the CO₂ emissions and burying them deep underground. BECCS is assumed in many INDCs and most of the scenarios explored by the IPCC. According to climate scientist Kevin Anderson, deploying BECCS on the scale envisioned would involve “decades of ongoing planting and harvesting of energy crops over an area the size of one to three times that of India” at the expense of growing crops to feed the

more than nine billion humans expected to be alive by 2050.

10. Trade Deals Can Override Climate Policies

Another major omission is any measure to prevent international trade agreements from interfering with climate policies. Investor state dispute settlement (ISDS) mechanisms found in many trade agreements pose a particular threat. These instruments allow foreign investors to sue governments if their policies are deemed to be unfair or unreasonable. A prime example of an ISDS suit obstructing action on climate change is TransCanada Pipelines' suit challenging President Obama's decision to deny a permit to the Keystone XL pipeline.

Part Two: Challenges for Canada

While Prime Minister Trudeau and Environment and Climate Change Minister Catherine McKenna took many principled stands during COP21, it remains to be seen whether actual policies will live up to those pronouncements. At a media briefing in Paris, Minister McKenna "refused to say whether the Liberal government would now base its own climate strategy on the 1.5-degree goal."

Here we examine 10 principal challenges Canada faces.

1. Setting a New Target

Before arriving in Paris, Minister McKenna declared that the previous government's goal of cutting GHG emissions to 30% below their 2005 levels by 2030 is a "floor" on which Canada will build a more ambitious commitment. Climate Action Tracker calculates that in order to achieve the goal of keeping global temperature increases below two degrees, Canada needs to set a 2030 goal of reducing GHG emissions by at least 73% below 2005 levels. Canada would have to make even larger emission reductions if it were to make the 1.5-degree goal achievable.

2. Relying on Reductions Within Canada Without Purchasing Credits Abroad

The federal government must decide whether it will allow international purchases of carbon credits to meet its emission reduction targets. The former

government included the option of extensively using international carbon markets as part of the INDC it submitted in May 2015. One sign that the new government is considering allowing international carbon trades is the inclusion of carbon trading in its talks with the U.S. and Mexico about forging a new continental energy and climate pact. Reportedly, "Mexico is eager to access Canadian and American markets to sell [carbon] credits." Indigenous people in the Mexican state of Chiapas are strongly opposed to selling carbon credits since putting a price on nature violates their culture.

The federal government could set a national standard for pricing carbon without resorting to international markets and still respect the autonomy of

those provinces that choose to join cap and trade schemes. Environmentalist [David Suzuki](#) and economist Jeff Rubin advocate a [federal carbon tax](#) that allows provinces to keep the revenues they collect from provincial programs, provided they meet a national standard. They suggest an initial national carbon tax of \$30 per tonne that increases gradually towards a more effective level. Under this plan, B.C. would keep all the revenues from its current \$30 carbon tax, while Quebec, Ontario and Manitoba industries would pay a federal tax equivalent to the difference between \$30 and the fluctuating value of tradable permits sold through periodic auctions.

David Suzuki suggests that a Canadian carbon price should reach \$100 per tonne by 2020. Studies by M.K. Jaccard and Associates in Canada and by the IPCC conclude that carbon prices would have to rise to around \$200 per tonne to be effective in keeping temperature increases below 2°C.

3. Including Climate Change and Indigenous Rights in Decisions on Resource Projects

During the election campaign the Liberal Party made two important promises relating to resources extraction projects. They pledged to change the approval process for energy ventures to include "an analysis of upstream impacts and greenhouse gas

emissions resulting from projects.” They also said they would implement the UN *Declaration on the Rights of Indigenous Peoples* which contains provisions giving Indigenous peoples the right to grant or withhold Free, Prior and Informed Consent (FPIC) for resource projects on their territories.

In January the government announced interim measures for reviewing the Trans Mountain and Energy East pipelines. While the government will assess the direct and upstream GHG emissions from the two pipelines they would not include the larger emissions that will occur when the products carried are burned. While the interim process promises “deeper consultation” with Indigenous peoples and accommodations where appropriate, there is no explicit commitment to a full FPIC process including the right for Indigenous peoples to withhold their consent to projects on their territories.

4. Keeping Fossil Fuels in the Ground Begins with the Tar Sands

Synthetic fuels extracted from the tar sands have a heavier carbon footprint than other fossil fuels because enormous amounts of natural gas are used to extract bitumen from the sand and then to upgrade it through the injection of hydrogen.

In a 2013 [Briefing Paper](#), I cited an analysis by the International Energy Agency implying that completing some tar sands projects planned or under construction might be compatible with keeping global temperature increases below 2^o C. An analysis of Alberta’s new climate plan by Gordon Laxer, author of [After the Sands](#), makes a convincing case that we need to phase out tar sands production, rather than cap its expansion if we are to have any hope of limiting global warming to 1.5 degrees.

5. Stopping Shale Gas Extraction Also Urgent

Stopping shale gas extracted by hydraulic fracturing (fracking) is urgent due to the large emissions of methane that escape during fracking operations. As a greenhouse gas, methane is 85 times more powerful than carbon dioxide over a 20-year period, the crucial time frame for stopping climate change from accelerating.

The threat to the climate posed by methane emissions points to the importance of maintaining the current bans on fracking in Quebec, Nova Scotia, New Brunswick and Newfoundland and Labrador. If British Columbia were to carry through with its plans for a large expansion of its shale gas industry in order to export liquefied natural gas (LNG) to Asia, it could not meet its legislated targets for GHG reductions.

6. Funding Adaptation and Mitigation in Low-Income Countries

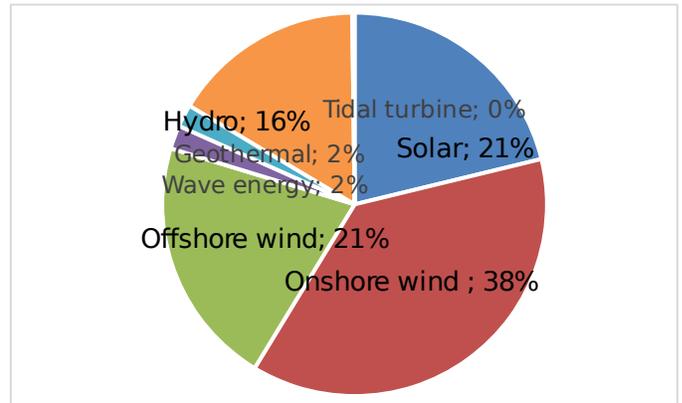
On the eve of the Paris conference, Canada announced \$2.65 billion in funding over five years for climate-related measures in developing countries. The funding would begin with \$300 million in 2016-17 and increase to \$800 million by 2020-21. Using precedents set by its contribution to other multilateral funds, civil society groups advocate that Canada’s contribution to the US\$100 billion target discussed in Part One ought to be \$4 billion by 2020-21. Foreign Minister Stéphane Dion explicitly acknowledged that goal by saying that the \$800 million Canada would contribute in 2020-21 would attract unspecified private “partners” whose contributions would bring the total up to \$4 billion. Lacking an explanation of how such private financing would be raised and dispersed, the government needs to make a larger contribution from public funds.

7. Spending on Clean Technology, Renewable Energy and Public Transit

During the election campaign the government made a number of promises for spending on clean technologies and energy conservation. It also promised to provide \$20 billion over 10 years in funding for public transit. The 2016 federal budget will be a first opportunity to advance these pledges.

The *Green Economy Network* (GEN) released a [fact sheet](#) in Paris showing how Canada could create one million new jobs while reducing annual GHG emissions by 25% to 30% by investing up to 5% of the annual federal budget in renewable energy, energy efficiency and public transportation over five years.

	\$Billions Invested Over 5-Year Period	Total Person Job Years Created	GHG Emission Red (MT CO ₂ e)
Renewable Energy (solar, wind, geothermal power)	\$18.8	235,247	43.7 ↔ 76.2
Energy Efficiency (i.e. building retrofits)	\$24.2	359,141	26.1 ↔ 101.4
Public Transit (i.e. improvements and expansion)	\$21.6	273,993	13.8 ↔ 24.2
Higher Speed Rail (between cities in urban corridors)	\$10.4	131,619	1.0 ↔ 5.2
5-Year TOTALS	\$74.9 billion	1,000,000 Jobs	84.6 MT ↔ 207 annually



8. A Just Transition for Workers

Even though Canada's support for a commitment to a just transition for workers shows up only in the preamble to the Paris Agreement, it is imperative that the government carry through with programs to ensure that training, decent work and quality employment opportunities are available for workers transitioning out of fossil fuel industries.

A just transition plan for workers would require appropriate training and relocation funds, involving workers and their unions in decision making and preferential hiring for displaced workers when green industries receive government funding.

9. Develop a Renewable Energy Plan for Canada

On the day before the COP began, 25,000 people marched in Ottawa, as did hundreds of thousands all over the world, under banners proclaiming that 100% renewable energy is possible by 2050.

Mark Jacobson from Stanford University has done pioneering research into the worldwide potential for renewable energy. Jacobson and his team have demonstrated how it is technically possible to meet all current energy needs from renewable power sources by the middle of this century without resorting to nuclear power, biomass or new large-scale hydro projects. Jacobson has produced a 100% renewable energy plan for Canada that could be in place by the year 2050 using known technologies.

CANADA'S 100% Renewables Scenario for 2050

10. Financing the Transition

The ambitious agenda for actions outlined above would require substantial government financing. Drawing on its annual *Alternative Federal Budget* the Canadian Centre for Policy Alternatives offers options for raising government revenues, including:

- A national carbon tax set initially at \$30 per tonne would raise \$16 billion a year. If this tax were raised by increments to eventually reach \$200 per tonne, it would then raise \$80 billion a year.
- Ending subsidies to the fossil fuel industry would recoup about \$350 million a year for the federal government (and more if provincial governments do likewise).
- A national financial transaction tax could raise \$5 billion a year.
- Returning the corporate tax rate to where it was in 2006 would raise \$6 billion a year.
- Tackling tax havens would recoup \$2 billion a year.

Conclusion

Three imminent events will test the willingness of Canadian governments to follow through on their promises. One test will be the contents of the 2016 federal budget. Another will be the outcome of the federal, provincial and territorial first ministers' conference on climate policies to be held in March. The third will involve decisions on how climate impacts and Indigenous rights are incorporated into assessments of pipeline proposals.

Notwithstanding the above analysis of major shortcomings in the Paris Agreement, the citizen mobilizations that took place around the world

provide grounds for hope. A popular refrain was *the road is not to Paris but through Paris*.

In North America, momentum is building among climate justice advocates towards stopping tar sands export pipelines.

The global divestment movement has already persuaded 500 institutions that manage US\$3.4 trillion in financial assets to withdraw at least part of their holdings from fossil fuels. This movement continues to gain strength among faith communities and other institutions.

Many households and communities are mobilizing to reduce their dependence on fossil fuels by retrofitting buildings and installing renewable power.

The signs of hope are everywhere. The next COP in Morocco will be important but the climate justice movement won't wait for it.

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