

LASER TALKS November 2015

SUGGESTIONS ON HOW TO PRACTICE LASER TALKS:

PAIR AND SHARE: practice the laser talks with a partner over coffee.

MIRROR WORK: Rehearse them in front of a mirror

PICK AND CHOOSE: Practice the laser talks that interest you the most – you don't have to learn all of them. If you are new to Citizens' Climate Lobby – keep it simple and be sure to learn the first six laser talks.

Caveat: the laser talks are not meant for people to present a monologue on the various aspects of carbon pricing and climate change. The real purpose of the laser talks is to facilitate a discussion on climate change with representatives, the media and the general public.

Please also considering using these laser talks to help you write letters to the editor and opinion editorials.

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Citizens' Climate Lobby Canada

Citizens' Climate Lobby (CCL) is an international, non-partisan organization that empowers citizens to lobby their representatives for a revenue neutral price on carbon pollution. Currently we have nearly 300 chapters in North America and over 14,000 CCL members worldwide. In Canada we cover over 60 ridings. CCL was founded in the USA in 2007 by [Marshall Saunders](#) and is modeled after the international poverty reduction organization [RESULTS](#), which is also our sister organization.

Since September 2010, Canadian Citizens' Climate Lobbyists have, through teleconference calls, monthly actions, and conferences, educated ourselves about the various aspects of climate change from the economics and science to the sociology, communication and its myriad connections to almost everything. Every June since 2011, CCL Canada has sent a delegation to Washington DC to lobby Congress, the World Bank, the International Monetary Fund and the Canadian Embassy.

After three years of building a small and effective army of concerned citizens in Canada from over 40 ridings, we descended on Parliament Hill, Monday, November 18, 2013, to lobby our MPs for a price on carbon pollution. We lobbied 26 MPs, one senator and the aides of Justin Trudeau and Elizabeth May for carbon fee and dividend. A year later, in late [November 2014](#), 68 citizen lobbyists attended our 3 day national conference and lobbying event in Ottawa. We advanced our understanding of how carbon pricing will create prosperity for Canadians and then we lobbied 42 parliamentarians for carbon fee and dividend.

Since November 2011, Citizens' Climate Lobby Canada has lobbied every November and June on Parliament Hill in addition to lobbying in our home ridings except in November 2015 because Parliament was not sitting. We have lobbied 91 federal parliamentarians and 40 provincial parliamentarians, many repeatedly. Since 2010 we have had 750 letters to the editor, opinion editorials and articles published by or about us since our beginnings in Canada. In 2015, with the expert management of Luxx Media, we created three television and radio Public Service Announcements that are airing nationally in Canada from August to December 2015.

The Five Chief Ways to Price Carbon

There are five ways to price carbon. They are listed here from least transparent to most transparent:

1. **The Status Quo**: external costs of climate change are not internalized and the taxpayer is forced to pay for climate and health-related damages.
2. **Regulation**: sector by sector regulation of all the sectors in the economy that produce carbon pollution.
3. **Cap and Trade**: put a mandatory limit (or "cap") on some portion of national emissions, and allow firms to buy and sell rights to emit within the cap as well. This can be with or without offsets. A **carbon offset** is a reduction in emissions of carbon dioxide or other greenhouse gases made in order to compensate for an emission made elsewhere.
4. **Carbon Tax**: a tax based on greenhouse gas emissions generated from burning fuels. The tax may or may not be revenue neutral. A revenue neutral tax is one that does not have a net increase in overall federal tax revenues.
5. **Carbon Fee and Dividend**: An incrementally increasing fee is placed on carbon pollution and 100% of the money is returned to households. The term fee is used deliberately to indicate clearly that it is a revenue neutral pricing system. Carbon fee and dividend, as proposed by Citizens Climate Lobby, is an upstream fee and is levied at point of production of fossil fuels (at the well head, mine or point of entry). A downstream tax, on the other hand, would be levied at the point of consumption of fossil fuels and/or products dependent on fossil fuels.

Carbon Fee and Dividend

Carbon fee and dividend is a revenue-neutral price on carbon that functions as follows:

- At the national level, a fee is placed on carbon-based fuels at the source (well, mine or port of entry)
- This fee increases steadily each year so that clean energy is cheaper than fossil fuels within a decade
- All of the money collected is returned to Canadians on an equitable basis.
- Under this plan most Canadians would break even or receive more in their dividend check than they would pay for the increased cost of energy, thereby protecting the poor and middle class.
- A predictably increasing carbon price will send a clear market signal which will unleash entrepreneurs and investors in the new clean-energy economy.
- Border tariffs on goods from countries without equivalent carbon pricing policies are applied to protect Canadian industries.

The way forward is a market based carbon price not Job Killing Regulation

Canada's Ecofiscal Commission released a report in April 2015 titled "[The way forward](#)". The Ecofiscal study used an economic model that analyzed where Canada would be in 2020 if regulation or carbon pricing were used to manage carbon pollution. The carbon pricing model they used was revenue-neutral.

In this model, Canada's gross domestic product (GDP) in 2020 is 3.7% better under carbon pricing than it is under a regulatory approach. The "gain" breaks down as follows: 0.4% from provinces linking their carbon pricing systems; 0.9% from recycling revenue into income tax deductions; and 2.4% from carbon pricing alone. The study was agnostic towards which carbon pricing mechanism was used. However it did stipulate that the carbon tax or cap and trade had to be "well-designed".

More evidence that carbon taxes are the way forward

Experiential evidence indicates [that five years after British Columbia's carbon tax](#) was introduced, it was successful in decoupling fossil fuel use from economic growth. In fact, residents of British Columbia pay the lowest income taxes in Canada and one of the lowest corporate rates in North America.

[In July 2014, the International Monetary Fund \(IMF\)](#), released a report calling on Canada to raise carbon taxes and cut income taxes. The IMF study determined that a carbon tax internalizing the real cost of fossil fuels (pricing-in pollution, etc) will increase Canada's gross domestic product by 1.4%, reduce carbon emissions by 15% and diminish deaths from air pollution by 25%.

Additionally, our largest trading partner would benefit from a domestic carbon fee and dividend policy. In June 2014, [Regional Economic Models, Inc.](#), examined a tax on the carbon-dioxide content of fossil fuels **in the USA**. The tax would start at \$10 per ton, increasing at \$10 per ton each year. Revenue from the tax would be returned to households in equal shares as direct payments. Under this approach, the REMI study found that recycling the revenue back into the economy would add **2.1 million jobs over ten years**. Improvements in air quality would save **13,000 lives a year**. Greenhouse gas emissions would decline by **33%**.

Why we want 100% revenue neutrality

1. A 100 percent rebate ensures that most Canadian households will come out equal or ahead regarding the increase in energy costs. This calculation takes into account not just direct energy costs, but the pass-through businesses will add to the cost of their products.
2. Politicians who feel pressured to not increase taxes can still vote the right way.
3. If while steadily raising the price of carbon-based fuels we eliminate all energy subsidies, we allow the market to go to work without the government picking winners and losers. Venture capitalists, banks, and entrepreneurs seeing a predictable price signal will create breakthroughs in innovation that in some cases are unimaginable at this point. A carbon fee is the most efficient and direct way to send a meaningful price signal to the markets, better than subsidies but also better than alternatives such as government regulations or cap and trade.
4. Asking citizens to voluntarily curtail their use of fossil fuels when others may not choose to do so can be demoralizing and ineffective. To maintain public support of the price we will ultimately need to stabilize CO2 emissions, and citizens will need to receive a significant dividend.

NAFTA and Carbon Fee and Dividend

On January 1, 1994, the North America Free Trade Agreement (NAFTA) went into effect. Under NAFTA, Canada, USA and Mexico have an obligation to protect the environment.

The North American Agreement on Environmental Cooperation was negotiated and implemented in parallel to NAFTA. It requires that each Party ensures its laws provide for high levels of environmental protection without lowering standards to attract investment. Each Party agreed to effectively enforce its environmental laws through the use of inspectors, monitoring compliance and pursuing the necessary legal means to seek appropriate remedies for violations. Each Party must also provide a report on the state of its environment, develop environmental emergency preparedness measures, promote environmental education, research and development, assess environmental impacts and promote the use of economic instruments.

As well, under NAFTA Article 604: Export Taxes, parties are allowed to maintain duties, taxes or other charge on the export of any energy or basic petrochemical good to the territory of another Party if the duty, tax or other charge applies to the exports of any such good to the territory of all other Parties and any such good when destined for domestic consumption. Thus, we are confident that Carbon Fee and Dividend would be acceptable under NAFTA rules.

Interestingly, the environmental clauses in NAFTA were negotiated to protect Canadian and American industries from less rigorous environmental laws in Mexico. Currently, Mexico is the only country that has a national carbon tax; whereas neither Canada nor the USA have any market price on carbon pollution.

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Border Tax Adjustments

In order for a fee on carbon to work on a domestic and on an international scale, an effective border tax adjustment will be necessary. Applied to imports from countries that don't have equivalent carbon pricing, the purpose of the border tax adjustment would be to protect Canadian businesses from unfair foreign competition.

In international legal circles, Joost Pauwelyn is considered the world's top World Trade Organization (WTO) expert. From Geneva, Mr. Pauwelyn assured us that a border tax adjustment is viable. He assigned a group of graduate students the task of researching how international carbon pricing mechanisms could be harmonized with a domestic fee on carbon while complying with WTO law. While it will probably be more complicated than we would like, top legal scholars say that a border tax adjustment will pass WTO scrutiny.

Having a border tax adjustment will ensure that if countries without carbon pricing such as Russia, the United States and Australia want to keep using dirty manufacturing processes, they'll have to pay the Canadian government for the privilege.

Five core principles of effective carbon pricing

- A steady, resolute and rising carbon price for predictability and effectiveness.
- Internalizing costs incrementally, according to the polluter pay principle, steadily and with no leakage.
- Simple as possible, transparent as possible, effective as possible at reducing emissions.
- Building economic value at the human scale*, encouraging the economy and creating jobs while reducing emissions.
- Easy to implement: region by region, country by country, harmonizing across borders.

* Building economic value at the human scale means returning carbon fees collected back to households. This is deemed much better than "investing" carbon taxes collected in multinational companies or giving tax breaks to billionaires.

Elements of a well-designed cap and trade policy

- An annually decreasing cap and strong floor price.
- Set the cap as upstream as possible – i.e. at the point where fossil fuels enter the Ontario market to ensure an economy-wide incentive to reduce emissions by improving efficiencies and investing in clean technologies.
- Include no offsets in the system and no credit give-aways to industry lobbyists. Carbon emission reductions due to offsets are difficult to prove and activities supported by offsets often occur without them.
- Return revenues from the auctions to Ontarian households to help citizens, particularly low-income Ontarians, shoulder rising costs passed onto them by industry. Returned revenue also helps cycle money into the local economy and builds public support for the annually decreasing cap and strong floor price – that effectively reduce greenhouse gas emissions.

The Healthy Climate and Family Security Act of 2015 in the USA

This bill was introduced in the USA by Congressman Chris Van Hollen in February 2015. The bill caps carbon pollution and reduces CO2 emissions gradually but steadily, auctions carbon pollution permits to the first sellers of oil, coal, and natural gas into the U.S. market, and returns 100 percent of the auction proceeds electronically each quarter to every American with a valid Social Security number in the form of a Healthy Climate Dividend. For more: vanhollen.house.gov/climate

Rural Voters Benefit from Fee and Dividend

Rural residents have a larger carbon footprint than urban dwellers, but suburban dwellers use more than both. [1] That's because your carbon footprint is strongly related to how much money you make. Wealthy suburbanites tend to have the largest homes, fly further on vacation flights, and buy more stuff. Data from B.C. shows they even drive more than rural residents. [2]

The difference becomes more apparent when you realize that only about 35% of Canadian household emissions come directly from burning fossil fuels (i.e. home heating and transportation).[3] Another 13% of our greenhouse gas emissions arise indirectly from the electricity we use, and the remainder is due to the goods and services we buy. In other words, half of the time we're making a climate-relevant decision, we don't even know it! This helps explain why wealth is so closely tied to your carbon footprint: wealthier Canadians can afford to buy more stuff.

Approximately 50% of Canadians produce average or less than average CO² emissions. However, when returning 100% of the revenue raised from an upstream fee as a monthly dividend to all Canadians, almost all Canadians would end up ahead. This is because Canada extracts much more carbon from the ground than we need to satisfy our own consumption. [4] And that extraction process itself emits greenhouse gases. Alberta's carbon emissions are higher than Ontario's even though it only has a third of its population, and much of the difference is in the extraction of oil and gas for export. [5] CCL proposes carbon fees to be applied at the wellhead, when fossil fuels first come out of the ground. Since we are such a large exporter of carbon, this would collect more than enough money to cover our increased cost of living, in Alberta and Ontario alike.

Putting a fee on carbon will raise the cost of living for everyone, but mostly for the suburban rich. This is because the poor are inherently more "carbon-virtuous" than the rich, since they have smaller homes, drive less, fly less, and buy fewer carbon-intensive products and services. The increase in prices encourages everyone, but especially wealthy individuals, to adjust their decision-making to reduce their carbon costs. Their dividend doesn't change when they make those personal consumption choices, so although most will come out ahead no matter what, those who change their habits come out even further ahead.

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Worldwide Carbon Pricing and the FASTER Principals

Information gathered from four World Bank reports [1, 2, 3, 4] indicate that governments around the world are taking action, China included. In 2015, 40 national and over 23 sub-national jurisdictions have already implemented or scheduled emissions trading schemes or carbon taxes. This represents the equivalent of about 7 billion tons of carbon dioxide, or 12 percent of annual global greenhouse gas emissions. See the updated 2015 map below to find out where [1].

In September 2015, to help countries navigate the waters, the World Bank Group, together with the [OECD](#) and with input from the [IMF](#), released a report on the [FASTER Principles](#) [1], which helps governments and business develop efficient and cost-effective instruments to put a price on the social costs of emissions. The FASTER principles are: **F** for fairness; **A** for alignment of policies and objectives; **S** for stability and predictability; **T** for transparency; **E** for efficiency and cost-effectiveness and **R** for reliability and environmental integrity.

Looking at it slightly differently, only two out of the ten of the largest economies in the world do NOT have a carbon price: including our biggest trading partner the United States as well as Russia [6]. *Note this includes California, which has an Emissions Trading Scheme, accurately as the world's 10th largest economy instead of India [7].

We are often asked what are India and China doing with regards to carbon emissions. In July 2014 India doubled its tax on coal to fund green energy projects [8]. On September 23, 2015, China announced a nationwide cap and trade system that will begin in 2017 and will include new national scheme would cover power generation, iron and steel, chemicals, building materials including cement, paper-making and nonferrous metals which together account for a large share of China's carbon pollution. .

Federally, Canada does not have a climate or energy plan and our current national plans for reducing greenhouse gas emissions are woefully inadequate and do not address greenhouse gas emissions in oil and gas sector (12).



***This is the most current map available from the World Bank (September 21) Ontario announced it was joining the Western Climate Initiative with Quebec and California in April.**

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Interaction with Provincial Carbon Pricing Programs

There are multiple options for reconciling a national carbon tax with existing provincial carbon pricing programs such as the BC Carbon Tax, the Cap and Trade system in Quebec and Ontario, or the Specified Gas Emitters in Alberta:

Preemption. In preemption, the provincial carbon pricing programs would cease to function once the federal law took effect.

Stacking. In stacking, both state programs would continue to function as is on top of the federal regulations

Integration. In integration the two programs would work together. For instance, if the provincial price for carbon was lower than the federal level, emitters would pay the federal level. If the price rose above the federal level, emitters would have to pay the higher price.

The point here is that there are multiple options for reconciling the provincial programs with the federal program, and should not be a reason to hold up federal action.

["What Would a Federal Carbon Tax Mean for California Cap-and-Trade?"](#). March 14, 2013. Four Twenty Seven Climate Consulting.

The Effect of Pricing Carbon on Farmers

Agriculture in Canada is heavily dependent on fossil fuels for running machinery and producing fertilizers, and a price on carbon would, by design, increase the price of fossil fuels.

For farmers, however, the impact associated with a price on carbon is not nearly as great – or as volatile – as other factors, especially if the fee starts low and increases predictably over time. For example, in Canada the price of farm machinery fuel increased by 25% in 2011 from 2010. As well, during that same time period fertilizer prices rose 29%.(1) Commodity prices, which determine the income farmers receive at any given time, are also extremely volatile.(2)

In addition, the impact of a price on carbon will be miniscule compared to the impact climate change will have on future farm productivity over the long-term if CO₂ emissions are left unmitigated. A March 2013 report by Canada 2020 concluded that *"climate uncertainty and climate extremes are givens for the future of Canadian agriculture and while there may be some initial benefits from rising temperatures and elevated carbon dioxide levels such benefits are unlikely to last. There is a growing body of evidence pointing to temperature and CO₂ thresholds, beyond which yields will level off or decline. These risks need to be addressed and policies put in place to reduce them."*(3)

Also, bear in mind that a price on carbon will be an economic opportunity for many farmers and ranchers as demand for carbon-free energy increases. Wind developers are leasing land from farmers to erect turbines. Solar farms can also replace cropland that doesn't generate enough income from traditional farming.

Of note, British Columbia's carbon tax does not appear to have had a measurable impact on international agricultural trade, despite concerns it would greatly reduce the BC industry's competitiveness, according to new analysis commissioned by the Pacific Institute for Climate Solutions (PICS). (4)

Bottom line: The additional cost of a price on carbon is negligible compared to the increased volatility that comes with a changing climate. In fact, a gradually and predictably increasing price on carbon creates an opportunity for farmers to balance that volatility with steady cash flow from renewables that share land with their crops.

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We Can Switch to Renewables in 20 Years

In 2009, Mark Jacobson (Stanford University) and Mark Delucchi (University of California, Davis) wrote a plan [published in Scientific American](#) for how to provide electricity for the entire world by 2030 using only wind, water, and solar technology already available at that time.

When they created this plan to meet the world's energy demand in 20 years, they took into account that the world adds approximately 1 billion people every 12 years and that emerging economies are looking to have our lifestyle, which requires greater energy needs.

Their report shows we can meet the entire world's energy needs with renewables in 20 years, that we can do it without nuclear, and that we can do it for the same money that we'd be spending on fossil fuel power.

Cutting carbon is cheaper than inaction

The conventional wisdom has always been that taking the necessary steps to reduce the threat of climate change will play havoc with the economy. In other words, we can cut carbon and stabilize our climate, or we can grow the global economy and thereby lift more people out of poverty and continue to enjoy our comfortable lifestyles. But we cannot do both at the same time.

That conventional wisdom was exploded. According to the [2014 report](#) from the Intergovernmental Panel on Climate Change, drastic action must be taken to reduce greenhouse gas emissions, but the cost of that action is much smaller than anyone thinks.

While economic growth is between 1.6 percent and 3 percent a year, the report states that mitigation would slow that rate of growth only 0.06 percent a year.

The report does not factor in the positive impacts of mitigation, such as improved health from the reduction of air pollution. Nor does it factor in minimizing economic losses from the damage climate change causes. If these factors are taken into account, the cost of mitigating climate change is far cheaper than doing nothing.

The latest IPCC report shows that economic impact can no longer be used as an excuse to delay action that will cut greenhouse gases.

Climate Change is a Medical Emergency

The threat to human health from climate change is so great that it could undermine the last 50 years of gains in development and global health, experts [warned in the Lancet](#) in June 2015.

The report said direct health impacts of climate change come from more frequent and intense extreme weather events, while indirect impacts come from changes in infectious disease patterns, air pollution, food insecurity and malnutrition, displacement and conflicts.

The good news is the panel also said burning fewer fossil fuels reduces respiratory diseases, for example, and getting people walking and cycling more cuts pollution, road accidents and rates of obesity, diabetes, heart disease and stroke.

In August, 2015, the Canadian Medical Association [approved a motion to promote the positive health impacts of pricing carbon emissions](#). They cited British Columbia's carbon tax as a good example. BC's fossil-fuel tax has reduced consumption of fossil fuels by 16% and their provincial GDP has grown above the national average.

Does the private sector support a carbon price?

Yes, an increasing number of companies and investors around the world are promoting the idea of a carbon price. Corporate leaders explain that a carbon price enables companies to factor the costs of GHG emissions into their decisionsⁱ. A transparent carbon price creates an incentive for companies to reduce GHG emissions, invest in low-carbon options and plan long term. ^{ii,iii} Both traditional companies (e.g. energy) and new industries (e.g. the internet) are among the supporters of a carbon price.

Here are just a few of the many examples of corporate leadership in promoting a carbon price:

- The **2012 Carbon Price Communique** that proclaims that “putting a clear, transparent and unambiguous price on carbon emissions must be a core policy objective” ^{iv} has been signed by 164 companies including global industry leaders such as BP, Shell, Statoil, and Unilever. ^v
- In the US, industry leaders such as Exxon Mobil, Walmart, Microsoft, ConocoPhillips, Chevron and Google are already factoring a carbon price into their financial planning. ^{vi}
- **The 2014 Global Investor Statement on Climate Change**, signed by over 360 investors with more than \$24 trillion in assets^{vii}, calls upon governments to “provide stable, reliable and economically meaningful carbon pricing that helps redirect investment commensurate with the scale of the climate change challenge”. ^{viii}
- In Canada, **the Clean50**, a group of corporate leaders, addressed the country’s leadership and all Canadians with a 2014 open letter calling for a “framework that includes setting a price on carbon at some specific date in the future, that would reduce other taxes, and provide an incentive for businesses and individuals to take steps to reduce their use of carbon”. ^{ix}

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Women and Climate Change

Women are and will continue to be disproportionately impacted by climate change. Yet, women are only 12% of those that lead the global climate policy negotiations (Harris, R. 2012). Here are just some of the impacts of climate change on women:

- Water stress and shortages will lead to an increase in women's labour in many contexts as they have the primary responsibility of collecting water in many parts of the world (Mearns & Norton, 2010).
- About 2/3 of the female labour force in developing countries and 90% in many African countries are engaged in agricultural work. In the context of climate change, traditional food sources become more unpredictable and scarce. As well, women face loss of income as well as harvests. Related increases in food prices make food more inaccessible to poor people, in particular to women and girls whose health has been found to decline more than male health in times of food shortages. Furthermore, women are often excluded from decision-making on access to and the use of land and resources critical to their livelihoods (United Nations Women Watch).
- Women are less mobile due to their roles as primary care givers (Araujo et al. 2007, p. 2) making it difficult for them to move as an adaptive response to a rapidly changing climate.
- Climate change disproportionately affects women due to a lack of power and increased social exclusion in some parts of the world (Mearns & Norton, 2010).
- Gender differences in death rates attributable to natural disasters have been linked directly to women's economic and social rights (Neumayer and Plümpner 2007). Women are more vulnerable to death in extreme weather events; women typically outnumber men by 14 to 1 among those dying from natural disasters (Araujo et al. 2007, p. 1). For example, social prejudices keeps women and girls from learning to swim, and as a result, they are more vulnerable to flooding disasters (Oxfam, 2005).
- Climate change is and will lead to more competition over resources which in turn leads to conflict and violence. Conflict amplifies existing gender inequalities. Women suffer the consequences of conflict such as rape, violence, anxiety, and depression (Osei-Agyemang, 2007).

In an April 2015 poll of Canadian women, 74% of women believe that protecting the climate is more important than building the Energy East pipeline and further developing the oil sands (Climate Action Network Canada, 2015). This is good news for our sisters in the global south, because Canada could help women around the world by pricing carbon pollution at the national level, spurring other nations to do the same and thus helping to mitigate the impacts of climate change on women.

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GENDER GAPS AROUND THE WORLD	CLIMATE CHANGE IMPACTS	IMPACTS EXACERBATE GENDER INEQUITIES
POVERTY OVER 50% OF THE 1.5 BILLION PEOPLE LIVING ON \$1 A DAY OR LESS ARE WOMEN (SOURCE: UNFPA)	CROP FAILURE	Women experience increased agricultural work and overall household food production burden
WATER ON AVERAGE WOMEN AND CHILDREN SPEND 8 OR MORE HOURS PER DAY COLLECTING WATER (SOURCE: UN WOMEN)	FUEL SHORTAGE	Many women in developing countries can spend between 2-9 hours a day collecting fuel and fodder, and performing cooking chores
GOVERNANCE GLOBALLY, WOMEN ARE 16.7% OF GOVERNMENT MINISTERS, 18.9% OF PARLIAMENTARIANS, AND 9% HEADS OF STATE (SOURCE: UN)	WATER SCARCITY	Increased burden on women walking further distances to access safe water, impacts the education and economic stability
FOOD WOMEN PRODUCE OVER 60% OF FOOD IN SOME COUNTRIES (SOURCE: FAO)	NATURAL DISASTER	Women have a higher incidence of mortality in natural disasters ; women can suffer from an increased threat of sexual violence
LITERACY TWO THIRDS OF THE 774 MILLION ILLITERATE ADULTS WORLDWIDE ARE WOMEN (SOURCE: UNCTAD)	DISEASE	As caregivers women often experience an increased burden for caring for young, sick and elderly as well as lack of access to health care facilities
LAND WOMEN OWN JUST 2% OF THE WORLD'S LAND (SOURCE: UN WOMEN)	DISPLACEMENT	Forced migration could exacerbate women's vulnerability
	CONFLICT	While men are more likely to be killed or injured in fighting, women suffer greatly from other consequences of conflict, such as rape, violence, anxiety and depression

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Global Security and Climate Change

On March 2, 2015, Scientific American published a paper: [“Climate Change hastened Syria’s Civil War”](#). The link between climate disruption and global security is well-established. In April 2008, Britain’s [Royal United Service Institute warned](#) that a failure to acknowledge the threats of climate change to global security is as dangerous as neglecting the risks of terrorism or nuclear weapons proliferation. In 2011, in the United States, [A New Strategic Narrative for the 21st Century](#) was presented to the Joint Chiefs of Staff. It identified climate change as a key threat to global economic and political stability. In 2014, [the fifth Intergovernmental Panel on Climate Change](#) report detailed threats of climate change to global security and possibilities of violent conflict.

Citizens’ Climate Lobby is grateful for your service to Canada and the world and for recognizing the link between global security, economic development and climate disruption and that tackling them all at the same time is 100% possible.

Natural Gas is not a suitable 'Transition' Fuel

Cornell University professor Robert Howarth, concluded in his May 15, 2014 paper in Energy Science and Engineering: *“Using these new, best available data and a 20-year time period for comparing the warming potential of methane to carbon dioxide, the conclusion stands that both shale gas and conventional natural gas have a larger GHG than do coal or oil, for any possible use of natural gas.”*[1]

Burning natural gas produces less CO₂ than coal or oil for the same amount of energy produced.[2] However, if only 3.2% of natural gas escapes into the atmosphere anywhere from the ground where it is extracted to the power plant, stove, or home where it is burned, then natural gas is just as bad for the climate as coal.[3] Previous studies suggest that more than 3.2% leaks, partly due to the fact that long distance pipeline infrastructure used to transport is an average of 50 years old.[4] However, if the leakage problem can be solved natural gas could serve as a transition fuel while we convert to renewable energy.

Society needs to wean itself from the addiction to fossil fuels as quickly as possible. But to replace some fossil fuels (coal, oil) with another (natural gas) will not suffice as an approach to take on global warming. Rather, we should embrace the technologies of the 21st Century, and convert our energy systems to ones that rely on wind, solar, and water power

Germany has shifted from getting 6% of its electricity from renewables in 2000 to 25% today.[5] On one day in April, 16, 2014 7 GWh of its electricity came from solar, equivalent to 8 Japanese nuclear reactors running full tilt for 24 hours.[6] Interestingly, Germany shares a few degrees of latitude with Alaska, and is further north than any other US state except the northernmost tip of Maine.[6] Portugal also increased the percentage of its electricity sourced from renewables from 17% in 2005 [7] to 70% in the first quarter of 2013.[8]

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Canada's recently announced GHG targets are hot air

In mid-May 2015, Canada's federal government revealed the contribution that Canada intends to make towards a new global climate deal – **30% below 2005 levels by 2030** which is **220 million tonnes of CO₂-equivalent**. Canada's national [plans include](#): fuel efficiency regulations, regulating hydrofluorocarbons (HFCs; less than 1% of Canadian emissions), limiting fugitive methane emissions from the oil and gas sector and addressing non-CO₂ emissions from natural gas-fired power plants. All of these are important steps.

Without any change in federal climate policy Canada's submissions includes:

- A new method of accounting for emissions **credits from forestry and land use**, went from [19 million tonnes worth of credits](#) now to a much higher credit, [around 63 million tonnes](#)
- [A secret internal briefing memo](#) prepared for the federal cabinet estimates that the current oil price slump and the associated slowdown in economic activity in some sectors, especially oil and gas, will result in a **30-million-tonne reduction in 2030 emissions**.
- Also in the previously-mentioned cabinet memo, the envisioned volume of offset purchases in 2030 is pegged at **33 million tonnes of CO₂-equivalent** –without any changes in Canada's domestic emissions profile. Offset projects are crucial to international cooperation but most of this cooperation must be realized **in addition to**, and not instead of, stringent domestic mitigation.
- The Canadian federal government is not coordinating this effort but instead heavily leaning on the provincial governments to implement effective climate policies. In fact, federal bureaucrats estimated that as much as **89 million tonnes** of the **total 220-million-tonne Canadian** reduction target could come from provincial efforts.



The current Canadian government has elected to pursue a sector-by-sector regulatory approach to climate policy, rather than, for example, a market-based economy-wide one. However, the only sectors regulated so far are [vehicle fuel efficiency](#) and coal-fired power generation, with a standard that will [not be fully implemented until 2062](#). At the same time, the Province of Ontario has already [completely phased out coal fired generation](#), from a share of [27% of electricity generation](#) in the early 2000s, highlighting a disconnection between federal and provincial policy approaches to climate change.

Oil sands emissions are expected to increase fourfold between 2005 and 2030 (by about 102 million tonnes), but there are no plans to regulate the sector. As the fastest growing source of emissions, the oil sands represent an important test of the sincerity of the government's intentions with regards to climate policy. In fact, in recent years emissions growth in the oil and gas sector more than cancelled out any emissions reductions undertaken in other sectors of the economy. This included Ontario's coal phase-out which is routinely characterized as ["the single largest greenhouse gas reduction initiative in North America"](#).

Referenced quite liberally from Christian Holtz, May 2015

<https://theconversation.com/canadas-climate-target-is-a-smokescreen-and-full-of-loopholes-42167>

Momentum is building for carbon pricing in Canada

On October 19, 2015, Canadians elected a majority government that is committed to working collaboratively on climate change with the provinces within the first 130 days of taking office. On April 14, 2015 [the provinces committed](#) to work in partnership with the federal government on climate change.

In November 2014, [the Clean50](#), a group of corporate leaders, addressed the country's leadership and all Canadians with a 2014 open letter calling for a "framework that includes setting a price on carbon at some specific date in the future, that would reduce other taxes, and provide an incentive for businesses and individuals to take steps to reduce their use of carbon".

In March 2015 Sustainable Canada Dialogues, a consortium of 70 academics released a paper "[Acting on Climate Change: Solutions from Canadian Scholars](#)" called for a national carbon price.

In May 2015 Canada's Suncor's [CEO called for a carbon tax](#) and separately Statoil, Royal Dutch Shell and other major oil companies in Europe [declared a need for carbon pricing](#).

In June 2015 the editorial boards for the national newspapers for the USA and Canada, [New York Times](#) and [Globe and Mail](#) endorsed revenue neutral carbon taxes.

[Ecojustice](#), [Canadian Federation of University Women](#), [KAIROS](#), [Canada 2020](#) and [Canadians for Clean Prosperity](#) have all called for a national carbon tax over cap and trade. The [Canadian Unitarians for Social Justice \(CUSJ\)](#) specifically support carbon fee and dividend.

In August, 2015, the Canadian Medical Association [approved a motion to promote the positive health impacts of pricing carbon emissions](#). They cited British Columbia's carbon tax as a good example. BC's fossil-fuel tax has reduced consumption of fossil fuels by 16% and their provincial GDP has grown above the national average.

On September 28, 2015, the **Wall Street Banks** of JPMorgan Chase, Bank of America, Citigroup, Wells Fargo, Goldman Sachs and Morgan Stanley [signed the following statement regarding carbon pricing](#), "Policy frameworks that recognize the costs of carbon are among many important instruments needed to provide greater market certainty, accelerate investment, drive innovation in low carbon energy and create jobs."

On September 30, 2015 Alberta's Premier, [Rachel Notley said](#), there is no long term future in fossil fuels and the province will wean itself off of fossil fuels by the end of the century. On [November 13, 2015, Alberta's Climate Panel](#) recommended carbon taxes. The day after Edmonton, Alberta's mayor Don Iveson declared [carbon taxes are the only way to go](#).

Climate Commitments from the Faith Communities in 2015

In June 2015, the Pope released [an encyclical](#) about creation care called Laudato Si. It is a moral call action to people of all faiths to take care of this planet and each other. Not only did 1.2 billion Catholics receive this call to action, soon after the [World Evangelical Association](#) also addressed their 600 million faithful and welcomed the Pope's call to action on creation care. As well, in August, The [Islamic Climate Declaration on Climate Change](#) , issued a [clarion call](#) to 1.6 billion Muslims to phase out fossil fuels and create 100% clean energy future by 2050.

Specifically in Canada, [KAIROS](#), an umbrella group for Canadian churches working for peace and social justice, support carbon tax over cap and trade. The [Canadian Unitarians for Social Justice \(CUSJ\)](#) specifically support carbon fee and dividend.