

SCIENCE MATTERS



By: David Suzuki

Can emissions shrink while the economy grows?

What does climate change have to do with economic growth? Canada's prime minister and premiers signed a deal in December to "grow our economy, reduce greenhouse gas (GHG) emissions, and build resilience to the impacts of a changing climate." The Pan-Canadian Framework on Clean Growth and Climate Change outlines plans for carbon pricing, energy-efficient building codes, electric vehicle charging stations, methane emission regulations and more.

Is the framework correct in assuming we can reduce greenhouse gas emissions and grow the economy? If not, which should be given precedence?

These questions come at a pivotal moment in Canadian climate action. The Pan-Canadian Framework marks the first time Canada's first ministers have endorsed a national plan to tackle climate change. It opens the door to a game-changing carbon price that will make reducing greenhouse gas emissions the smart, cost-saving choice for businesses and individuals.

However, a recent Nature Climate Change article claims, "No major advanced industrialized country is on track to meet its pledges to control the greenhouse-gas emissions that cause climate change." Canada pushed for ambitious targets during the 2015 Paris climate negotiations, but even the framework won't put us on track to meet our pledged reductions.

Rather than being an outcome of climate action, economic growth may prevent us from reaching climate targets. A July 2017 study in Nature Climate Change concluded that the world only has a five per cent chance of keeping global average temperature from increasing beyond 2 C. On a positive note, the authors found economies worldwide will likely become more energy-efficient, and low-carbon sources like wind and solar will make up a growing share of the mix.

But economic growth will likely cancel out these advances. For every megatonne of emissions reduced through efficiency and clean energy, another megatonne will be produced because of economic expansion. Our economies will get bigger almost as fast as they get cleaner and emissions will not drop quickly enough to stave off catastrophic climate change.

Economic growth has been the primary goal of every Canadian government, provincial and federal, for decades. Leaders' speeches are peppered with references to it. Election cam-

paigns are filled with promises of economic expansion. Pity the politician who presides over an economic downturn.

Rarely do we stop to ask what economic growth means. In short, it's a year-to-year increase in production, distribution and consumption, as expressed by gross domestic product.

If GDP strikes you as a poor indicator of well-being, you're not alone. The late U.S. politician Robert F. Kennedy once remarked that GDP "measures everything, except that which makes life worth living." It's a flawed indicator of progress.

The Pan-Canadian Framework expresses optimism that we can reduce emissions while expanding the economy. This promise of "green growth" is popular because it offers something for everybody. It maintains a commitment to economic growth while claiming greenhouse gas emissions will drop. But, as the Nature Climate Change study asserts, "green growth" is likely an oxymoron.

"Degrowth" advocates argue that tackling climate change requires shrinking the economy. A planned slowdown of the economy would be achieved by implementing shorter workweeks and more holidays and encouraging low-consumption lifestyles.

"Agrowth" advocates such as environmental economist Jeroen van den Bergh argue that we should ignore GDP altogether, and instead evaluate progress using indicators such as literacy, employment, rates of diabetes and heart disease, water and air quality and climate stability. If GDP happens to go up while these indicators improve, so be it. If GDP goes down while other measures of well-being increase, what have we truly lost?

When the Pan-Canadian Framework is implemented, some economic sectors will likely grow. Companies that offer low-carbon energy sources, energy-efficient products and opportunities to offset or store greenhouse gas emissions will prosper. Other sectors, like coal mining for power production, will shrink. We may or may not have "clean growth," but we will have a cleaner economy and a better shot at preventing or mitigating climate change's most harrowing effects.

If moving beyond the Pan-Canadian Framework is at odds with growing the economy, let's make sure our elected officials have their priorities straight. Reducing greenhouse gas emissions should take precedence over economic growth.

JUST A THOUGHT

Smoke and mirrors



By
Trish Bell

Believe it or not, it has now been 16 years since planes crashed into the World Trade Centre, the Pentagon and a farmer's field in Pennsylvania. Sadly, while I would love to write that our world is a better place despite those atrocities, we all know there is an entire generation growing up under the shadow of what such definitive historical moments do to us as a society. I would be lying to say it didn't change us all and lying more to say it was for the better. Sure, at the time people showed their vulnerability and their strength as they came together and sifted through the endless rubble, but once that dust settled, the same old monsters crept out of that debris and began their rampage once more. Unlike the old monsters of our childhood imagination hiding under beds and in closets, fear and anger live above ground and show themselves in the numerous conspiracy theories and so-called fake news stories that plague not only our social media accounts but more importantly our understanding of our world and each other. And such monsters are particularly apparent after heartbreaking disasters, like the recent hurricanes—a shark on the highway and planes under water, really?

Today, the mention of fake news immediately conjures up images of Donald Trump's electoral win; but while it may be his go-to phrase, even he would have to admit that fake news is a bigger, nastier and more impactful demon than even his ego could be. Fake news, as we like to call it these days, is just propaganda. It can be found in every culture and time from antiquity to today, from Galileo and Luther versus the Catholic Church to the infamous 1938's broadcast of the War of the Worlds. There is no shortage of dynamic examples, and despite being the most educated humans to walk this planet with the gift of hindsight in hand, we continue to be no better at knowing truth from lies. According to

Forbes, "from August to November 2016, fake stories earned more shares, reactions and comments on Facebook than real news stories." What's more, while several polls showed up to 80 per cent of people feel confident they can recognize fake news, it doesn't appear that way. A Stanford study found that when comparing a true news story with a content sponsored article, 80 per cent of those asked incorrectly believed the content sponsored articles to be more accurate.

This epidemic isn't just embarrassing, but dangerous; those same polls also showed that 64 per cent of us believe "fake news is making it harder for us to have a shared view of the facts." Part of our problem lies in our belief system. As computer engineer Haluk Bingol puts it, "we believe that truth has the inherit power to overcome false." This seems to build up a counterfeit sense of security, and our new dependency on social media only proves Marshall McLuhan's medium is the message adage true as such channels open the doors to "echo chambers" where only like-minded people reinforce each other's opinions and make untruths seem stronger. Add to this reality the purposeful use of bots—fake social media sites—used to push stories through by boosting the popularity and thus reliability of stories, sites and ads. Yet, technology isn't the only culprit in the believability of fake news. Studies are beginning to prove the idea of the overloaded brain. Essentially, when overwhelmed with new information, the brain puts deciding good from bad into the hands of the brain—let's call them interns—who like so many young people, value popularity over quality and thus lead us

to believe fake news' accuracy based on the amount of likes, shares and comments the information gets. Add to this that Twitter, Facebook and other social media sites make suggestions based on popularity and one can see the vicious cycle that creates reality where none exists. Of course, this is exactly what the proponents of fake news want; they know that saturating the information market to people with short, stretched attention spans helps them get through to more people and push their agenda, be it political, cultural or economic. People being overloaded with information are much easier to manipulate and the goal here is simple: to make money. Lots of it: one fake news poster admitted to making \$10,000 a month simply by writing fiction in a news-like format, choosing words that ignite emotions and manipulate public opinion. Even traditional media have an agenda. The idea is that they will stay true to their professional moral responsibilities, remaining unbiased in their reporting, but let's face it, papers and newscasts are not simply benevolent enterprises determined to do what is righteous. Most people can easily tell which way the Toronto Star or Toronto Sun lean and to whom they are gearing their writing. No, reality is that news companies are also in the business of making money—or at least breaking even—and with so much competition for your attention, traditional media is beginning to see that their target audiences are getting lazier and less culpable when seeking out the truth. News can have elements of truth but don't kid yourself; there is always an end goal in mind. Sometimes the agenda is clear: disseminate information, change your opinion, influence your vote, sell more bonds and, sometimes, the message is ambiguous. Call it spin, marketing, publicity or false news; be careful what you read and even more careful of what you believe.

CLARIFICATION: The article 'Credit Valley Trail winds through Halton' in the September 7, 2017 edition of *The New Tanner* omitted the following information:

It may be one of the only river trails in the country that highlights natural and cultural heritage within twenty destinations along its route. It

also features many significant archaeological discoveries. Knowledge of these significant archaeological discoveries was led by ASI, a leading Archaeological and Cultural Heritage consulting firm with support from Ron Williamson, a pre-eminent Archaeologist in Canada. Through the Credit Valley Trail Indigenous Experience Plan, this

archaeological knowledge will be complemented by Indigenous traditional knowledge and cultural insights with the goal of sharing the deep connection of Indigenous cultures to the Credit River through interpretation in public spaces along the route.

The New Tanner apologizes for the error.