'STEADY AS SHE GOES'

THIS HOUSE BELIEVES GOVERNMENTS SHOULD PRIORITIZE SUSTAINABLE DEVELOPMENT OVER ECONOMIC GROWTH

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INTRODUCTION

Before coming up with the arguments for your case, take the time to do a fair bit of research. Reading articles about the resolution will give you an idea about what kind of action to take. You may find that some things are already in place, while other ideas have no information on them because they are not popular topics for the media. It is important to focus on concepts that you can support with research. So above all, before you do anything, gain a good knowledge base.

Try looking at some of the big themes of the debate: How does economic growth counter sustainability? Will the privatization of water benefit the environment? Are economic growth and sustainability exclusive, or is it more of a balance? Are the problems of the present more significant than the possible problems of the future? Look for the contradictions. These are just a few ideas to get you started. Try brainstorming more ideas with your partner and your club, then focus on what case you want to build – on both the affirmative and negative side.

The key to running a good affirmative argument in this debate is to remain focused. The more focused you are on what you want your plan to achieve, the harder it is for the negative team to attack you. Your plan could be to argue that sustainable development is of higher importance than economic growth, or that environmental sustainability is foundational to economic growth. All of these cases have good arguments behind them and good evidence to support them (but there may be other approaches that you should also explore – this is your chance to solve this problem!). It would be hard to argue all the possible points in the little time you have. When developing your plan, be prepared for possible negative attacks and then strengthen your case. Don't leave yourself open to attack!

It is beneficial to remember the same things as the negative team. You don't know what the affirmative team will do, so you should do a lot of research and become very knowledgeable about this subject. That way, you will be ready to deal with anything the affirmative comes up with. It might help to write down many pieces of evidence on different cards, but only plan on using a few of them, depending on how the affirmative team defines the debate. Remember, preparation is just as important, if not more important, for the negative team as it is for the affirmative team. You must have prepared evidence too! Try summing up the main theme of your case in one clear statement – either for the affirmative or negative. Then, make sure you have 3 to 5 key points in your case that relate back to your theme or "caseline". During the debate, make sure both your constructive arguments and your clash relate back to your caseline and attack the opposite team's caseline.

To win a debate, you must show the judges that you triumphed over your opponents on some key arguments and that you presented the stronger case. you have done a good job as the affirmative team mentioning evidence for every point you make, and the negative team has argued against you but has failed to support themselves with articles and statistics, then show the judges that you have a more concrete case. Mentioning your superior evidence should tip the balance of the debate in your favor if both teams have done a good job of clashing. In your final rebuttal speeches, in addition to your final clash and summary, refer back to the big theme of your case and how it was proven superior to your opposition's development of their theme.

-Adapted from an article written by Garrett Richards, Fall 2004

BACKGROUND ARTICLES

ECONOMY VS. ENVIRONMENT

David Owen The New Yorker March 30, 2009

http://www.newyorker.com/magazine/2009/03/30/economy-vs-environment

The week before last, twenty-five hundred delegates, from more than seventy countries, met in Copenhagen to prepare for the United Nations Climate Change Conference, which will take place there in December and will produce a successor to the Kyoto Protocol, which was adopted in 1992 and will expire in 2012. The speakers in Copenhagen were united by a sense of urgency—and for good reason, given the poor record of most participating countries in meeting their Kyoto targets for reducing the emission of greenhouse gases.

So far, the most effective way for a Kyoto signatory to cut its carbon output has been to suffer a well-timed industrial implosion, as Russia did after the collapse of the Soviet Union, in 1991. The Kyoto benchmark year is 1990, when the smokestacks of the Soviet military-industrial complex were still blackening the skies, so when Vladimir Putin ratified the protocol, in 2004, Russia was already certain to meet its goal for 2012. The countries with the best emissions-reduction records—Ukraine, Latvia, Estonia, Lithuania, Bulgaria, Romania, Hungary, Slovakia, Poland, and the Czech Republic—were all parts of the Soviet empire and therefore look good for the same reason.

The United States didn't ratify the Kyoto Protocol, but Canada did, and its experience is suggestive because its economy and per-capita oil consumption are similar to ours. Its Kyoto target is a six-per-cent reduction from 1990 levels. By 2006, however, despite the expenditure of billions of dollars on climate initiatives, its greenhouse-gas output had increased to a hundred and twenty-two per cent of the goal, and the environment minister described the Kyoto target as "impossible."

The explanation for Canada's difficulties isn't complicated: the world's principal source of man-made greenhouse gases has always been prosperity. The recession makes that relationship easy to see: shuttered factories don't spew carbon dioxide; the unemployed drive fewer miles and turn down their furnaces, air-conditioners, and swimming-pool heaters; struggling corporations and families cut back on air travel; even affluent people buy less throwaway junk. Gasoline consumption in the United States fell almost six per cent in 2008. That was the result not of a sudden greening of the American consciousness but of the rapid rise in the price of oil during the first half of the year, followed by the full efflorescence of the current economic mess.

The world's financial and energy crises are connected, and they are similar because credit and fossil fuels are forms of leverage: oil, coal, and natural gas are multipliers of labor in much the same way that credit is a multiplier of wealth. Human history is the history of our ascent up

what the naturalist Loren Eiseley called “the heat ladder”: coal bested firewood as an amplifier of productivity, and oil and natural gas bested coal. Fossil fuels have enabled us to leverage the strength of our bodies, and we are borrowing against the world’s dwindling store of inexpensive energy in the same way that we borrowed against the illusory equity in our homes. Moreover, American dependence on fossil fuels isn’t going to end any time soon: solar panels and wind turbines provided only about a half per cent of total U.S. energy consumption in 2007, and they don’t work when the sun isn’t shining or the wind isn’t blowing. Replacing oil is going to require more than determination.

The environmental benefits of economic decline, though real, are fragile, because they are vulnerable to intervention by governments, which, understandably, want to put people back to work and get them buying non-necessities again—through programs intended to revive ordinary consumer spending (which has a big carbon footprint), and through public-investment projects to build new roads and airports (ditto). Our best intentions regarding conservation and carbon reduction inevitably run up against the realities of foreclosure and bankruptcy and unemployment. How do we persuade people to drive less—an environmental necessity—while also encouraging them to revive our staggering economy by buying new cars?

The popular answer—switch to hybrids—leaves the fundamental problem unaddressed. Increasing the fuel efficiency of a car is mathematically indistinguishable from lowering the price of its fuel; it’s just fiddling with the other side of the equation. If doubling the cost of gas gives drivers an environmentally valuable incentive to drive less—the recent oil-price spike pushed down consumption and vehicle miles travelled, stimulated investment in renewable energy, increased public transit ridership, and killed the Hummer—then doubling the efficiency of cars makes that incentive disappear. Getting more miles to the gallon is of no benefit to the environment if it leads to an increase in driving—and the response of drivers to decreases in the cost of driving is to drive more. Increases in fuel efficiency could be bad for the environment unless they’re accompanied by powerful disincentives that force drivers to find alternatives to hundred-mile commutes. And a national carbon policy, if it’s to have a real impact, will almost certainly need to bring American fuel prices back to at least where they were at their peak in the summer of 2008. Electric cars are not the panacea they are sometimes claimed to be, not only because the electricity they run on has to be generated somewhere but also because making driving less expensive does nothing to discourage people from sprawling across the face of the planet, promoting forms of development that are inherently and catastrophically wasteful.

One beneficial consequence of the ongoing global economic crisis is that it has put a little time back on the carbon clock. Because the climate damage done by greenhouse gases is cumulative, the emissions decrease attributable to the recession has given the world a bit more room to devise a plan that might actually work. The prospects for a meaningful worldwide climate agreement probably improved last November, with the election of Barack Obama, but his commitments to economic recovery and carbon reduction—to bringing the country out of

recession while also reducing U.S. greenhouse emissions to seventeen per cent of their 2005 level by 2050—don't pull in the same direction. Creating "green jobs," a key component of the agenda, is different from creating new jobs, since green jobs, if they're truly green, displace non-green jobs—wind-turbine mechanics instead of oil-rig roughnecks—probably a zero-sum game, as far as employment is concerned. The ultimate success or failure of Obama's program, and of the measures that will be introduced in Copenhagen this year, will depend on our willingness, once the global economy is no longer teetering, to accept policies that will seem to be nudging us back toward the abyss.

IT'S NOT THE ENVIRONMENT VERSUS THE ECONOMY

Paul Attfield The Globe and Mail December 11, 2015

http://www.theglobeandmail.com/report-on-business/international-business/its-not-the-environment-versus-the-economy/article27727251/

As the Paris COP21 climate-change conference comes to a close, two Canadian leaders reflect on the potential effects of climate change, as well as efforts to reverse carbon emissions, on our country's economy and businesses. **David Miller** is president and chief executive officer of environmental organization World Wildlife Fund-Canada and **Ilse Treurnicht** is the CEO of the innovation centre MaRS Discovery District in Toronto.

According to a recent Ipsos Reid poll, Canadians listed climate change tenth, beneath other concerns such as health care, unemployment and jobs, taxes and poverty. How big a concern is this (and why does it rank below other issues for Canadians)?
David Miller: All these polls depend on how questions are asked, but the one thing I do know is Canadians are environmentalists, they really are. People of whatever political belief really understand and appreciate the beauty of our natural areas. It's part of our natural identity and, flowing from that (and the polls do confirm this) Canadians believe in supporting, conserving and protecting the environment. They also believe at the same time that it's possible to do that in a way that's economically sustainable.

What are climate-change related concerns specific to Canada?
Ilse Treurnicht: There is huge pressure on long-term investment in high-carbon infrastructure. In addition, adaptation presents a big challenge in many industries, including agriculture and insurance. Most major utilities are being forced to rethink how they do business, as their business models are being disrupted by new technologies and new financing mechanisms.
DM: There are three areas of direct negative impact from climate change, and then an economic challenge. The three areas of direct negative impact are in the Arctic, where the sea ice season is getting shorter and shorter and that has huge impacts for ice-dependent species and also for people whose livelihoods depend on hunting those species. Second is the increasing severity and frequency of storms: huge costs to people, to government and to the

economy – Calgary floods, Toronto ice storm, those kinds of problems. It is very expensive and when you speak to the insurance industry, they're very worried. The third is subtle changes in nature. For example, the Prairie climate is going to change quite dramatically – what then happens to nature, what then happens to where we can plant arable crops? And then, of course, because part of our economy is based on the extraction of fossil fuels, as those are required to be used less and less to reach the world's goals, that will have an impact on people who depend on those industries.

Is it a black-and-white issue pitting the environment against jobs and the economy?
DM: I think it has always been miscast as the environment versus the economy. I actually think it's the other way around. It's: How do we build an economy that's going to succeed in the future? And a big part of that answer is doing things in harmony with the environment. So, for example, in order to use fewer fossil fuels to heat and cool buildings, one of the solutions might be energy retrofits. You create huge numbers of jobs because that's a very manual thing to do. For example, to retrofit all of the multi-unit apartment buildings that were built in the seventies and earlier would create about 30,000 jobs. So you create far more than you would be losing by slowing down the exploitation of oil because it's not needed as much if you're using less. I think the challenge for government is the jobs that are created need to support the communities that aren't creating as many jobs any more.
IT: The world is heading toward de-carbonizing its economy. Those who develop relevant solutions will see a very significant long-term economic upside. In addition, lower emissions and lower energy usage means increased global competitiveness. Big companies are beginning to figure this out. For example, MaRS works with renewable generation, energy storage, and energy efficiency companies that, when deployed together, will enable a jurisdiction to reach a 100-per-cent renewable model.

Will policy seeking to curb carbon emissions (such as carbon pricing) risk hurting the Canadian economy, especially if other jurisdictions are not adding similar costs to industries?
IT: We need to view this as an opportunity for Canada to be a global leader in energy exports, beyond oil and gas. Yes, these policies present a challenge for high-carbon users. Ontario is going cap and trade, not carbon tax, to support those industries. They want to protect carbon-intensive, export-exposed industries until the rest of the world catches up to us.

At the same time, can a prosperous economy or business climate function in the long term in the absence of a stable climate?
IT: No – over the long term, it will be very difficult to maintain existing economic output, let alone achieve growth, in the absence of a stable climate. Earlier this year, the Pentagon released a report arguing that global climate change will have wide-ranging implications for U.S. national security interests over the foreseeable future. If a significant rise in temperature begins to threaten domestic stability in a number of countries, then there can be no prosperous economy.

Is Canada too small to have a global effect, given the massive size of developing nations ramping up their economies and energy consumption?
DM: No. We have less of an effect than the United States or China, but we all have a role to play and all of us have an impact, whether it's individuals or the country, and we all morally must play a part or we can't criticize anybody else. But because Canada is an oil- and bitumen-producing country we perhaps have a special leadership role. And I think the positive for Canada is if we can take that leadership role and start using new technologies to solve some of these environmental problems, we're going to benefit economically from that. If we wait for others to lead, they'll benefit economically as they solve the problems and reap the rewards of that.

How many Canadian startups are focused on creating products that will impact climate change?
IT: Companies don't focus on climate change as a business per se, but because it's a big problem that needs to be solved, it offers a massive market opportunity and entrepreneurs are busy developing solutions. Low-carbon energy infrastructure will be the single largest global market in the 21st century; it is expected to reach $2-trillion in 2020. Entrepreneurs recognize this, and that's why they are engaged in the clean-energy sector. I am optimistic. We see very ambitious entrepreneurs developing truly breakthrough solutions in critical areas such as energy storage.

What is happening elsewhere that you think Canada should emulate?
DM: I think Canada should take a very close look at the work being done by cities internationally. For instance, Seoul has a program called the City of Sunlight that is about solar energy. The insight there is that distributed energy can help solve lots of local problems, like resilience in the face of storms, as well as lower greenhouse gas emissions, so you get lots of reward for an investment. I think we should be looking to those examples because there are hundreds of proven projects that work.
IT: The World Bank's lead on the green bond file has been impressive. The global financial institution began issuing green bonds in 2008 to help combat climate change and has raised billions of dollars to support projects in reforestation, energy-efficient buildings and public transportation. Competitively priced, these debt tools help governments attract institutional investors.

How much does change start in Canadian homes, or is it such a huge, complex problem that solutions need to be carried out on a national, and even international, scale?
DM: Climate change is a large problem and the science behind it is complicated. I don't believe the solutions are, though. I think it's pretty clear what we need to do and I'll put it simply – most greenhouse gas emissions are from cities or the actions needed to support cities and most of those are from how we heat and cool our buildings, from our transportation and from how we generate electricity. So if we deal with those sectors, and we can – there are lots of things available today that both reduce emissions and create jobs in those three sectors – we can have a huge impact. People have a role in all three of those sectors, as well. People can make different transportation choices, if alternatives exist. But even people walking to work one day

a week or taking a bike if they're in a place that's safe or buying a lower-emission vehicle or taking transit once a week can help. The same with buildings: If you make your home more energy efficient, you're going to save money over the long term and have lower emissions. And even with generating power: Ground-source heat pumps or rooftop solar or hot water, all can be done economically or with an investment that pays off eventually. If you aggregate all those individual actions, it can add up to a very significant impact.

IT: Climate change poses a huge system-level innovation challenge: How to rethink, redesign and deliver well-being and prosperity to people everywhere in a way that does not harm the planet – when the system that got us here is threatening both people and planet. This challenge is now becoming a burning platform for governments, business and civil society. Smart innovators around the world are rising to the challenge – with growing financial and other support from the public, private and philanthropic sector. They are looking at every aspect of this challenge – and the solutions that emerge will reshape the way we live, work and play. So the challenge for Canada is also our opportunity: We need to be on the innovation team, bringing climate-change solutions to Canadians and to others around the world. By creating solutions, rather than having the solutions of others imposed on us, we will be much better positioned to control our destiny through this period of transformation – economically and as a society.

ECONOMY VS. ENVIRONMENT DOESN'T HAVE TO BE A ZERO-SUM GAME

Regina M. Buono Forbes December 28, 2015

In modern American politics, the choice between economic growth and protecting the environment is frequently depicted as mutually exclusive. Though there are exceptions, industry actors and environmental organizations are often suspicious of one another, talking past each other as they oppose each other's initiatives. These differences can lead to long and expensive litigation, with development decisions turning on political factors that can affect human livelihoods and environmental well-being in myriad ways. For reasons like those, it's worth taking note when someone offers an alternative approach. Recent years have seen an increase in projects, largely spearheaded by private actors and NGOs, that are designed to provide mechanisms to mitigate environmental impact while allowing economic activity to continue and to incorporate conservation into business plans. It appears, however, that federal policy may be catching up: two recent initiatives[1] from the federal government appear poised to push these ideas forward and facilitate future activity in this area.

In November, the Obama administration issued a memo to the secretaries of Defense, Interior (DOI), and Agriculture, and the administrators of U.S. Environmental Protection Agency and the National Oceanic and Atmospheric Administration, calling for a goal of a net benefit (or, at a minimum, no net loss) of land, water, wildlife, and other ecological resources from federal actions or permitting. The memo orders the agencies to develop and implement additional guidance on mitigation, including under the Endangered Species Act, within set time periods. Relevant agencies are directed to "adopt a *clear and consistent approach* for avoidance and minimization of, and compensatory mitigation for, the impacts of their activities and the projects they approve" (emphasis added). The agencies are also urged to use landscape- or

watershed-scale planning in their decisions to fully consider and understand the impacts of development for an ecosystem and to pick the best spots for mitigation or offsets. Another key component is a call for better transparency surrounding the mitigation policies and agency guidance, including for measurable performance standards. The end result is intended to be a regulatory context that will facilitate more effective systematic environmental analysis and protection, while streamlining permitting processes to authorize economic activity.

This month, Secretary of the Interior Sally Jewell announced that the DOI will establish the Natural Resource Investment Center "to spur partnerships with the private sector to develop creative financing opportunities that support economic development goals while advancing the Department's resource stewardship mission." The Center, created under existing authority of the DOI, will use market-based tools and public-private partnerships to pursue three objectives: (1) increased investment in water resilience and conservation in the western United States; (2) increased investment via creative financing approaches to build new water infrastructure and replace existing ones; and (3) private investment and well-structured markets for the conservation for species, habitat, and other natural resources. In addition to promoting investment in critical water infrastructure, the Center will develop new financing approaches and identify places in which the private sector can fruitfully invest in habitat conservation programs for public and private lands.

The United States is composed of 2.27 billion acres of land, of which the federal government owns roughly 635-640 million acres, or about 28%. These lands are managed by federal agencies or the military for a variety of purposes, including conservation, recreation, and natural resource production. The remaining 70+% of the country is privately owned (or owned by the states), so conservation action on private lands is a crucial part of impacting the environment for the better. Developing ways to do so without harming economic growth and the resulting human well-being is essential. This is an area in which the two new policy initiatives may help cement the Obama administration's environmental legacy: demonstrating that environmental stewardship and thriving economic activity are not mutually exclusive and facilitating implementation of this idea. By opening (or widening) the door for federal support of creative, often market-based, private conservation initiatives, the federal government is helping advance the understanding that a healthy environment is beneficial to both humans and business.

The presidential memorandum and the investment program also reinforce efforts toward expanding the analysis used in environmental management decisions, supporting and boosting conservation trends wherein innovative, market-based approaches have been implemented to protect the environment and achieve compliance with laws such as the Endangered Species Act. As noted above, recent years have seen new conservation approaches, often funded by environmental NGOs or industry actors seeking to comply with mitigation requirements through the purchase of permanent land easements or development of habitat exchanges or conservation banks. Examples of these activities include wetland restoration efforts in Minnesota or the habitat exchanges put in place across the west to aid the greater sage grouse. If implemented successfully, the new policies will help foster a streamlined regulatory context

within which innovative mitigation and other conservation efforts may occur more easily and, potentially, profitably.

Administration officials and some NGOs are predicting that the policies will result in bigger markets for conservation actions due to increased regulatory certainty and incentives. According to Christy Goldfuss, Managing Director of the Council on Environmental Quality, an estimated 125,000 jobs and $9.5 billion in direct economic activity are currently tied to the restoration of natural resources in the United States. Goldfuss anticipates these numbers will grow under the new policy. These benefits are the heart of what makes the initiatives so interesting, and potentially so important: the policies unite our capitalistic focus on economic development with environment stewardship. In other words, companies (and society) are increasingly seeing a healthy environment as part of good business, and the biggest environmental legacy of the Obama administration may well be to put the weight of federal policy behind that change in attitude.

[1] These are not the first steps in this direction by the Obama administration. Earlier policy directives include the first order issued by Sally Jewell as Secretary of the Interior (Order 3330) and an April 2014 report from the Energy and Climate Change Task Force.

PROPOSITION ARTICLES

GREEN AND GROWING

The Economist January 25, 2001

http://www.economist.com//node/487011

HOW are prosperity and greenery related? It has been a combative and so far undecided issue among environmentalists and economists, made the more so by the poor quality of most environmental data. Now a team led by Dan Esty of Yale University, with support from Columbia University and the World Economic Forum (WEF), hopes to fill that information gap, and perhaps to help answer the broader question, too. Their team has developed the Environmental Sustainability Index (ESI), a detailed assessment of dozens of variables that influence the environmental health of economies (see chart). The team released its rankings of 122 countries this week, to coincide with the forum's schmoozathon of businessmen and political leaders at Davos, in Switzerland. The devil is, of course, in the detail. For a start, defining “environmental sustainability” is a tricky task, on which the rest of the exercise hangs. The researchers point out that politicians have bandied the term about for years, but have not thought to measure it—though it is less woolly than the (no less bandied-about) idea of “sustainable development”.

Mr Esty and his researchers sorted through 67 separate variables that it reckoned could influence environmental sustainability, ranging from sulphur dioxide in the air to corruption. They devised 22 “core” indicators for the ESI, made up of those variables, which they weighted equally for the purpose of the country rankings. These range from eco-efficiency, to population stress, to the responsiveness of the private sector. They found that the indicators clump together naturally into five broad areas:

•**Environmental systems**. This assesses whether biodiversity and other measures of environmental well-being are at healthy levels, and whether they are improving rather than deteriorating—for whatever causes.

•**Reducing environmental stresses**. This judges whether human impact is low enough not demonstrably to harm environmental systems.

•**Reducing human vulnerability**. This measures how susceptible people's basic needs (such as health and nutrition) are to environmental disruptions.

•**Social and institutional capacity**. This weighs up whether the country has in place institutions and underlying social patterns of skills needed to cope with environmental challenges.

•**Global stewardship**. This considers whether countries work well on cross-border issues such as global warming, ozone depletion and acid rain.

Quantitative quagmire

What light does the new ESI report shed on all this? One finding is that there is considerable variation in environmental sustainability among countries at similar stages of economic development. Wealth certainly matters: per-head income is highly correlated with the ESI'Srankings. It is absurd to expect Haiti, which is deforested, to pursue green goals as

keenly as Finland. But there is no reason it should not aspire to the relative greenery of comparably poor Cameroon.

A striking result is that the variable with the greatest correlation with greenery is corruption: the less corrupt a country is, whatever its income level, the more likely it is to score high in the rankings. Mr Esty reckons that corruption (measured by Transparency International, an anti-corruption group) is a proxy for lots of other things, such as the rule of law and the protection of property rights, that have a big influence on how individuals treat natural resources.

Interesting, yet nagging doubts remain about the methodology. For a start, one inevitable doubt that any such country-by-country analysis faces is that environmental problems rarely fall neatly within a single country's boundaries. Problems may be global or cross-border—or even highly local—in nature. Another doubt about country rankings is that headline-grabbing hype may overshadow the substantive analysis that backs up such rankings.

A tricky challenge for the cross-country comparisons is to decide how to weigh each indicator. Global warming may mean a lot to Finns, but people in the poor world's filthy cities care much more about local air or water pollution (see table). The ESI gives equal weight to all its 22 indicators, an approach that is sure to please no one. The authors accept this criticism, but explain that their database will soon be available on CD-ROM. Critics will then be able to use whatever weightings they prefer.

Another challenge remains the paucity of good data. By forging ahead anyway, the report risks lending a quantitative gravitas to conclusions that are based on still-sketchy data. The researchers sometimes used computer models; at other times, they made educated guesses. Huge data gaps remain in areas such as toxic waste, lead poisoning and natural-resource subsidies. The authors justify this by arguing that they have created a framework that exposes the data deficiencies, and so spurs others to remedy them. Future versions of the report, they point out, can only get better.

One of the more surprising findings of the rankings is the low score received by Singapore, which prides itself on being the “garden city of the east”—and on coming at or near the top of most international rankings. Equally surprising may be the relatively high score for Russia, infamous for its pollution inherited from the Soviet era. In Singapore's case, the authors reject suggestions that a heavily populated city-state crammed on to a small island meets unduly harsh judgment. On the contrary, they point out, their framework is weighted towards only countries' populated parts, so that countries with large, empty tracts, such as Russia, are not unfairly rewarded. That is why their analysis in general shows only a weak link between ESI score and land area. Ditto, population density.

Yet even after such adjustments, Singapore scores poorly, because its environmental situation is precarious. The authors argue that they wish to illuminate precisely how such places are approaching the limits of environmental sustainability. In Russia's case, the authors acknowledge, the ranking is surely inflated. They point to faulty and missing data as the culprits.

They have tried to fill in some gaps, but they have not replaced even dubious official sources of data with unofficial ones, fearing the poor precedent: it would be impossible to replicate for all countries.

As that unsatisfying compromise highlights, the ESI is deficient in several important ways. Alas, it also does not provide a definitive answer to the really big questions about the causal linkages between greenery and growth. However, Mr Esty argues, "the chief virtue of this index is that it begins the process of shifting environmental debates on to firmer foundations, underpinned by data and a greater degree of analytic rigour." On that more modest measure, the ESI is a thoughtful step in the right direction.

ENVIRONMENT MINISTERS MEET TO DISCUSS CARBON-CUTTING STRATEGIES

Bruce Cheadle Maclean's January 29, 2016

OTTAWA – Canada's environment ministers were meeting on Friday in an effort to negotiate a national carbon-cutting strategy to meet the country's ambitious international targets.

Provincial and territorial ministers arrived Thursday for talks with federal Environment and Climate Change Minister Catherine McKenna, in advance of a full-blown first minister's conference with Prime Minister Justin Trudeau tentatively set for the first week of March.

It's the first ministerial meeting on the climate file in almost a decade, a period during which provinces have each pursued their own climate policies in the absence of an over-arching national plan.

At a UN-sponsored summit last month in Paris, the new Liberal government — in consultation with the provinces — agreed with nearly 200 countries to limit global warming to below two degrees Celsius by mid-century.

A new report this week from the Ivey Business School at Western University lays out the scale of the challenge Canadian governments have set themselves.

While Canada emits just 1.6 per cent of global greenhouse gases, the country is in the top three for the amount of emissions per person.

Canadians, per capita, produced about 20.6 tonnes of GHGs in 2012, says the report from former senior federal civil servant Paul Boothe, compared with a global average of 6.2 tonnes per capita. A United Nations research group says that in order to meet the Paris temperature target, citizens globally must be down to per capita GHG emissions of just 1.7 tonnes by the year 2050.

The previous Conservative government set a 2030 target of reducing Canada's emissions 30 per cent from 2005 levels by 2030, a target adopted "as a floor" by the incoming Liberals. Several provinces, meanwhile, have set their own reduction targets.

The report, “By The Numbers: Canadian GHG Emissions,” states that “even if all provinces achieved their announced or proxy targets, Canada would still face a gap of about 45 Mt (megatonnes) in 2020 and 55 Mt in 2030.”

Climate skeptics like to point out that Canada’s relatively small contribution to global levels of carbon dioxide means any Canadian reductions will have a negligible global impact. Advocates counter that climate change poses the classic dilemma of the commons: If a wealthy, industrialized, self-respecting international citizen like Canada — with one of the highest standards of living on the planet — won’t do its part, then how can developing nations be convinced to curb emissions?

The Canadian Climate Action Network, a coalition of environmental groups, says the federal and provincial ministers could create a million new jobs with an aggressive green agenda — powered by almost $81 billion in government spending over the next five years. And even that staggering outlay doesn’t address the wide regional differences presented by different economies within Canada.

“Significant challenges lie ahead for Canada as it works to meet its GHG emission targets and those challenges parallel the ones faced by the international community,” Boothe and co-author Felix Boudreault say in the conclusion to their report.

“Finding ways to equitably share the burden of GHG emission reductions and practical mechanisms to allow regional and national economies to transition to a low-carbon world will test the ingenuity and will of political leaders at home and abroad.”

DO WE DARE TO QUESTION ECONOMIC GROWTH?

Warwick Smith The Guardian October 13, 2014

https://www.theguardian.com/commentisfree/2014/oct/13/do-we-dare-to-question-economic-growth

he endless pursuit of economic growth is making us unhappy and risks destroying the Earth’s capacity to sustain us. The good news is that taking steps to make our lives more sustainable will also make us happier and healthier. Would you like a four-day weekend – every week?

I’ve been to two conferences over the last year with similar basic premises. The first was at the Australian National University on ecological economics and the second, just last week, was on steady state economics at the University of New South Wales. The premise sitting behind both of these conferences is simple and undeniably true yet undermines so much that is fundamental to our current way of life:

We live on a finite planet.

That's it. How, you might wonder, can such a simple statement of obvious fact undermine the tenets of modern society?

The earth is a giant rock, hurtling through inhospitable space surrounded by a very thin film of life sustaining atmosphere. Earth's life support systems are self-sustaining and self-regulating. However, we humans are slowly and steadily pulling this life support system to pieces. Our planet is very large and can absorb a lot of tinkering with its systems, but there are now over 7 billion of us and the amount of energy and resources we are each using is growing fast. That's a lot of tinkering.

There's plenty of evidence that we are pushing up against and exceeding several critical boundaries of global sustainability: by which I don't mean some tree hugging idea of sustainability, I mean we are taking actions that cannot be supported by the earth's systems in the long term. We're already exceeding the earth's adaptive capacity with respect to greenhouse gas emissions, biodiversity loss and the nitrogen cycle and we're approaching critical limits in both the phosphorous cycle and ocean acidification. Our use of fresh water is also approaching or exceeding sustainable limits in many parts of the world and we're systematically destroying our arable land. These are critical life sustaining global processes that cannot be ignored without severe consequences.

Economists, like the nobel prize winning Paul Krugman, will counter this line of thought by pointing out that, theoretically, we can have endless economic growth because of continuous efficiency increases. If you believe human creativity is endless then you can argue that economic growth can be endless. However, in this case, like in so many, reality clashes violently with economic theory. We are showing no signs of decoupling economic growth from physical resource use. Unless that decoupling starts now and happens in a hurry, continued economic growth will push the planet beyond its capacity to sustain us – on several fronts.

You may be surprised to hear that there's really good news in all this. None of the stuff we're doing that's destroying the biosphere is making us happy. By contrast, changing to a more sustainable way of living will also bring us greater happiness and general wellbeing. Seem too good to be true? That's because we've all been so effectively sold the line that endless growth is essential to maintain and improve our quality of life. This couldn't be further from the truth. Material prosperity has diminishing returns when it comes to happiness and wellbeing. Once we have good access to food, shelter, healthcare and other basic material things, the nature of the community in which you live and the quality of your relationships is the best predictor of wellbeing. More stuff only makes a very marginal difference.

Money can't buy happiness. When rich countries get richer their subjective wellbeing (SWB) doesn't necessarily rise. Photograph: Development, Freedom, and Rising Happiness: A Global Perspective (1981–2007

So, the good news is that the public policy settings for saving the planet align very well with the policy settings for saving your marriage and your relationship with your children, friends and neighbours and therefore with serving your happiness and wellbeing.

First we have to do something about the price of housing. People cannot be freed from the earth destroying and soul destroying rat race when simply securing a place to live means a lifetime of debt peonage to the banks (or paying absurd rents to somebody else so that they can give it to the banks).

Once this is done, we need to understand and promote the value of leisure and the lack of benefit we get from material consumption. Retail therapy only ever works in the very short term. Real friendships work for life.

How about a three-day work week with a four day weekend? It can be done. Productivity improvements can be directed into allowing people to work less for the same pay instead of into corporate profits and expansion. It's not written in stone that you always have to work as hard as you can for as long as you can so that some senior executive can get his million-dollar bonus. Instead, work for or set up a not-for-profit cooperative where the workers own the business and can spread the benefits any way they see fit. It's true that if we work less and buy less the economy may shrink but we'll all be happier and healthier. Here's something you won't hear from many politicians or economists: the economy should serve us, not the other way around.

Think about that three day work week. It is possible and the only reason we don't do it is because it doesn't suit the ambitions of the empire builders, the 1% who control so much of the wealth and the political power. Their system requires our consent and participation. They can be beaten if we simply stop believing their bullshit and prioritise our own wellbeing and that of the planet. It's both that simple and that difficult.

HOW AIR POLLUTION AFFECTS OFFICE WORKERS – AND THE ECONOMY

The Economist October 4, 2016

http://www.economist.com/blogs/economist-explains/2016/10/economist-explains-2?zid=313&ah=fe2aac0b11adef572d67aed9273b6e55

FOR anyone who has tried jogging through smog, the physically sapping impacts of air pollution should come as no surprise. But pollution doesn't just slow down runners, it hampers workers too. Research by Tom Chang of the University of Southern California and colleagues found that pear packers working indoors were slowed by air pollution even at levels well below current air-quality standards. Might sedentary office workers indoors, also be slowed down by poor air quality?

In a second paper, Mr Chang and his colleagues studied China, where air pollution is a major problem. China releases a daily air-pollution index (API)—also referred to as an air-quality index—which rates air quality based on the health risk it represents. Anything above 100 is bad news. In Shanghai the index periodically hits 150, putting everyone's health at risk. To establish the correlation between productivity and air pollution, the authors focus on office workers in two call centres in Shanghai and Nantong, where productivity can be measured by counting the number of calls workers handle per day.

What they find isn't good. On days with higher air pollution, workers spend more time on breaks and complete fewer calls. On average, a 10% increase in the API was associated with a 0.35% decrease in number of calls handled per day. That quickly adds up: workers in the call centres studied are estimated to be 6% more productive on low-pollution days than on days when pollution is high. The likely culprit for office workers is particulate matter, which can easily enter buildings through windows and vents. The smallest of these particles enter the blood stream and the central nervous system, affecting concentration and mental performance.

Activity in the service sector, much of which happens in offices in polluted cities, accounts for 68.5% of global GDP. Mr Chang and his colleagues reckon that a reduction in China's air pollution index by just 10 points could boost worker output in China by at least 15 billion yuan ($2.2 billion) per year. The damaging effects of particulate matter on productivity may also be larger in more cognitively demanding professions—suggesting the benefits of reduced air pollution could be greater still. The implications extend far beyond China; damaging pollution occurs even in major Western cities. In 2014 air pollution in Los Angeles exceeded the 100 mark on 90 days, by an average of 21 points. If air pollution had been lowered to 100 on all these days, service-sector output could have been $374m higher, reckon the authors. Cleaner air would allow both bosses and workers to breathe easier.

OPPOSITION ARTICLES

WHY DO WE NEED ECONOMIC GROWTH?

BBC News October 16, 2008

http://news.bbc.co.uk/2/hi/uk_news/magazine/7674841.stm

With recession looming and unemployment rising, politicians and economists are trying to find ways of stimulating economic growth. But is growth a good thing? Does it have harmful consequences? Could we live without it, asks John Sloman.

First of all, what do we mean by economic growth?
It is the annual rate of increase in real GDP, where GDP stands for "gross domestic product". This is the country's production of goods and services, valued at market prices (or at cost when the goods are not sold). The figures are then corrected for inflation by using the prices that existed in some chosen base year. Currently, GDP statistics in the UK use 2003 as the base year.

In 2006, GDP was £1,229bn in 2003 prices; in 2007 it was £1,266bn. This means that real output grew by £37bn or 3.0% in 2007.
In 2008 growth is likely to be under 1% and negative for the last quarter. Next year it will probably be negative.
From one year to the next, the crucial factor affecting growth is spending. If people spend more, firms will sell more and this will encourage them to produce more. Whether the spending is by individuals, business, the government or people abroad on our exports, higher demand will lead to higher output.

The big danger at the moment is lack of spending. With bank loans down, and people becoming cautious about spending, we have the recipe for recession.
But the answer to getting long-term growth is not simply one of increasing spending. If we spend beyond the capacity of the economy to produce, we'll simply end up with inflation and boom will be followed by bust.
If growth is to be sustained over the years the key is a growth in investment and productivity. This is partly down to scientists and engineers in developing new efficient techniques and new products, but partly down to getting incentives right to encourage investment.

It's an election winner
Politicians see growth as very important. Elections are won or lost on the state of the economy. Look what happens if growth disappears and recession looms. People get very concerned about falling incomes and rising unemployment.
But do governments need to do more than just keep production going and avoid recession? Do we really need output to go on growing year after year after year? Well, in one sense we do. If living standards are to be maintained and population is growing, then output at least needs to grow as fast as population.

Then there is the question of poverty. If poverty is to be relieved and the rich are not to be made poorer, then growth is necessary. Of course, making the poor richer is not easy and there are many political obstacles in the way. But at least growth makes it easier.
Imagine trying to alleviate poverty without growth. Income would have to be redistributed from rich to poor. But this doesn't go down well with the rich. Conservatives, and many in new Labour too, argue that higher taxes on the rich will discourage them from working and investing and could result in lower output.
Then there is the question of human wants. People want more. Ask anyone if they would like to be richer and very few people would say no. Why do people do the lottery? And what politician doesn't want to give the people what they want.

Finally, there is the question of debt. Some people are so keen to consume that they just borrow more and more - and this has been fuelled by banks offering easy credit. But rather than borrowing and getting deeper into debt, it would be much better if everyone could earn more. But that takes economic growth.
So is this game, set and match for the proponents of economic growth? You've probably guessed that the answer's no.

Growth can't buy love
Greater consumption does not necessarily make you happier. There are some pretty miserable wealthy people. Economists have tried to develop ways of measuring happiness and, in most cases, once people earn above a certain level of income there is not a lot of connection between happiness and income. GDP doesn't measure happiness; it measures output.

Think of the things that give you happiness and/or fulfilment. Many of them do not involve consumption. Many involve human relationships and giving rather than taking. A consumerist mentality can erode your humanity.

And there is a darker side to economic growth. It may actually have a negative effect on well-being. Take pollution. Greater output tends to lead to greater pollution. Look at the worries about the rapid growth of China on the production of CO2 and global warming. Look at the worries about pollution from the USA, the country with the highest GDP in the world.
What is more, economic growth may lead to the depletion of resources - a problem that's likely to get worse as world population and world consumption grows.

Then there are things included in GDP, which are really 'bads' rather than 'goods'. For example, if you live near your work and walk or cycle, then this will probably benefit your health. Now assume that you take a job a long way from where you live and have to buy a car, or a second one. The commuting costs - the car, the petrol, the insurance - will all be counted in GDP. But the commuting is likely to decrease your well-being, not increase it.

It's not enough alone
Finally there are things such as childcare, housework and decorating. These are recorded in GDP if you employ someone to do them for you, but not if you do them yourself. If we

increasingly employ people to do these things, then GDP will grow, even if no more has been done.

So, do we need economic growth?
Growth may be necessary, but it certainly isn't sufficient.
Certainly for poor people, to be able to consume more food, have better clothing and shelter, and access to education and healthcare would be an improvement in their living standards. Economic growth that allows these things to occur would be good.
But whilst economic growth may be a necessary condition for the relief of poverty and can be desirable for middle- and high-income people too, it is not enough on its own. Governments and society need to be judged on so much more than simply whether their economies are growing.

NOT EASY BEING GREEN

The Economist July 30, 2016

http://www.economist.com/blogs/economist-explains/2016/10/economist-explains-2?zid=313&ah=fe2aac0b11adef572d67aed9273b6e55

THE world's policymakers agreed at the Paris climate-change talks last December to try to limit greenhouse-gas emissions so global temperatures rise by no more than 2°C from pre-industrial levels. To succeed, they need, among other things, to encourage people to buy cleaner cars and lorries. Around 23% of carbon-dioxide emissions come from transport, of which three-quarters stem from road vehicles, according to the International Energy Agency.

Governments have tried to get drivers to go for greener vehicles. Some have raised the cost of driving by taxing petrol and diesel. Others have taxed the ownership of dirty cars by raising their annual registration fees, or dangled rebates on purchases of greener ones.

Which is the most efficient approach? A new paper by Anna Alberini and Markus Bareit compares policy changes in Switzerland's 26 cantons to changes in new car sales in each area between 2005 and 2011 as a natural experiment. The least efficient policy was the annual rebate for owning a green car. The authors found this was much less effective than raising the annual registration fees on dirty cars, which had the bonus of raising revenues.

But even that was inefficient. Every tonne of carbon saved by the purchase of greener cars cost the consumer SFr810 ($815), over seven times the government's estimate of the economic cost of higher emissions. Higher fuel taxes were more effective: the authors found a 16% increase in petrol duty had the same effect as a 50% increase in registration fees.

Ms Alberini says that drivers seem to see road taxes as less important than fuel efficiency, in part because refilling their cars frequently reminds them of the cost. Second, as the annual registration fee is levied regardless of distance driven, there is no incentive to drive less once it has been paid. The study mirrors other findings. In a paper published last year, Reyer Gerlagh of

Tilburg University and several co-authors found higher annual road taxes on gas-guzzlers have no, or even an adverse, effect on emissions.

Higher fuel taxes are, alas, unpopular. Many European countries have preferred to subsidise the purchase of cleaner cars than tax dirty ones. Good politics is rarely good news for the environment.

CANADIAN ECONOMY IS LOOKING WORSE. YOU CAN BLAME THESE 2 THINGS

Jesse Ferreras The Huffington Post Canada July 22, 2016

http://www.huffingtonpost.ca/2016/07/22/canadian-economy-outlook_n_11146348.html

Is Canada's economy in bad shape? That depends on who you ask.

Reuters spoke with about 40 analysts and found that the country's economic outlook is worse than it was just a few months ago — with two factors particularly to blame.

Collectively, the analysts predicted that the Canadian economy would grow by 1.3 per cent this year, down from the 1.7 per cent estimate they had three months prior, the news agency said.

Much of that can be connected to two things: oil, and a softening American demand for Canadian exports.

Crude has seen a downturn in prices, and a devastating Fort McMurray wildfire in Fort McMurray put as many as 30 million barrels out of production.
As for demand from the U.S., Reuters noted that there's lots of unease in the country over a possible interest rate hike by the U.S. Federal Reserve. November's presidential election is also causing uncertainty.

Canadian exports are set to shrink at an annualized rate of 15 per cent in the second quarter — the worst since the Great Recession of 2008/2009, Statistics Canada reported earlier this month.

Tough trade talk on the campaign trail by American presidential candidates Hillary Clinton and Donald Trump has added to the concern around exports.
Trump, in particular, has been critical of NAFTA, a key trade deal between Canada, the U.S. and Mexico. That talk has fed fears about protectionism.

But last month, TD Bank issued a report showing that much of the chatter may not materialize in the way people are worried about.

"Protectionist policies are like trying to put the toothpaste back in the tube — it's difficult to do, messy, and can be wasteful," the report said.

BMO senior economist Benjamin Reitzes had a comparatively rosy view of Canada's economy.

In a note released Friday, he said the federal government's spending could give the economy a lift in the second half of 2016 and the the first few months of next year.

The boost comes as Canada's debt-to-GDP ratio sits around the 30 per cent range.

Japan, on the other hand, is about to start spending more despite a debt-to-GDP ratio of 130 per cent — meaning its national debt is worth more than its national economy.

The BMO economist also praised Canada's stable governance at a time when the U.K. is dealing with the Brexit fallout, and when the U.S. election is grappling with a lack of party confidence in either presidential candidate.

"Despite a largely negative narrative over the past year, the outlook for Canada remains relatively positive," Reitzes said.

STARLING CANADIAN GDP NUMBER COULD SIGNAL ECONOMIC TURNING POINT

Don Pittis CBC News April 1, 2016

http://www.cbc.ca/news/business/gdp-canada-analysis-1.3514344

In economics journalism the normal rule is that only gloomy news sells. Canada's latest economic growth figures are so startlingly good that they make a rare exception.

The first inclination for any self-respecting business journalist is to look for the dark lining within the silver cloud. A little more on that later.

But while the Canada economy faces many challenges yet, such strong GDP data are very hard to dismiss. They offer hope that rather than being a drag on the global economy, a newly optimistic Canada may be part of the solution.

It is hard to exaggerate the significance of these January growth figures, described as "rip-roaring" by the usually careful BMO economist Doug Porter. For one thing they were unexpected, double what economists had predicted.

Staggering growth rate

While 0.6 per cent growth may not seem like much, we must remember this is a monthly number. If we had 12 months like that, the annual growth rate would be in the range of a staggering 7 per cent, unheard of in an advanced industrial economy.

The new numbers provide vindication for what seemed like Pollyanna-like predictions by Bank of Canada governor Stephen Poloz who, during the darkest days of the oil crash, promised that the balancing effect of a low Canadian dollar would eventually recharge non-resource industries.

It seems Bank of Canada governor Stephen Poloz has been vindicated in his prediction last year that there were signs non-resource export growth was on the rebound. (Reuters)

The GDP figures also offer vindication for the economic strategy of the previous Conservative government, because it is difficult to see how the new Liberal government's policy could have taken effect in time to cause these growth statistics.

Perhaps the prospect of new government spending promised in the autumn election campaign enticed some businesses to loosen purse strings.

Whether or not that is true, the new data bodes well for the current government's fiscal spending strategy. As mentioned previously, government spending only boosts, but cannot replace, weak economic activity. On the other hand, when growth is already happening, even a small burst of spending can have a jump-start effect, helping to convince capital to get off the sidelines and back into the active economy.

A Canadian glimmer of light

A Financial Times editorial described Canada as a glimmer of light in a world of "sluggish economies" because of its willingness to use fiscal spending to help boost global growth. But these latest figures may indicate Canada is providing something even more valuable: leadership in actual growth, not just growth created by artificial stimulus.

And in the current climate, a little growth can lead to even more growth.

According to the theory of 'animal spirits,' putting on a happy face due to encouraging economic data can result in a virtuous circle of economic confidence. (Reuters)

If you accept the "animal spirits" analysis offered by Poloz at the end of last year, optimism is more than just a good feeling. It has real economic consequences, especially after an extended period of gloom.

Such a burst of real growth could have another advantage for the current government's plans. It would reduce the worry of a debt overhang caused by the Liberals' deficit spending spree. Real economic growth creates new revenue, simultaneously cutting the debt ratio by expanding the bottom half of the ratio's fraction.

Finance Minister Bill Morneau was already getting international kudos for his stimulus budget, but now there are signs Canada's real growth rate may pull, not drag, the global economy. (Reuters)

While the past three months' growth numbers are strong enough to assure us that the January figures are not "fluky" according to Porter, we cannot expect such strong economic activity to continue month after month. No one is expecting 7 per cent growth this year.

Hazards ahead

At the same time, as mentioned, there are many real and potential challenges ahead for the Canadian economy, many of them raised just this week.

Despite a healthy contribution to January's GDP from the oil and gas industry, the Bank of Canada warned on Wednesday that the energy slowdown is far from over. Deputy governor Lynn Patterson reminded us that while oil output has remained strong, job losses in the sector will continue to have a negative multiplier effect on Canada's energy-producing economies over a period of years.

Also this week, a new warning about Canada's growing private debt pile. Well-known international economist Steve Keen placed Canada in a club of "seven countries most vulnerable to a debt crisis."