

FOS MEMBERSHIP QUARTERLY NEWSLETTER

No. 48

“FoS is dedicated to providing the public with insight into Climate Science”

PRESIDENT’S MESSAGE

Paris Climate Talks

Since our last quarterly newsletter, COP21 has taken place in Paris resulting in an abundance of political rhetoric but a toothless agreement in keeping with previous Conferences of the Parties.

One of our members, Rob Pearce, has submitted a blog post on the ‘bafflegab’ “[Insights on the COP21 Paris Agreement](#).” at Friendsofsciencecalgary.wordpress.com

It appears that attendees had a grand and expensive party at the expense of taxpayers.

We were Stunned by a Public Attack

As many of you know, Ecojustice Society Canada filed a public story and document against our group over our billboards. This seemed an unwarranted attack to us, and apparently others agree. The Calgary Herald ran an editorial on freedom of speech in our favour [here](#). The Financial Post published a column on the Competition Bureau angle [here](#). We haven’t heard anything official against us, so we simply posted an [Open Letter](#) to human rights activist and Vice President of PEN International, Margaret Atwood, asking for her help for climate dissidents.

Quick and Easy Ways to Share Information

We produced a few short, informative videos critiquing COP-21 events – please, **share with friends and family**.

[No Laggards – for Mission Impossible?](#)

[Commit to science-based decision-making? Yes, please!](#)

[For Albertans – NDP push for renewables will harm consumers](#)

[Canada is clean – wind energy is harmful](#)

All of this is based on misinformation and omission in Alberta’s climate change leadership documents:

[Alberta’s Climate Change Panel Info is Misleading](#)

And the fact that our scientific advisors’ early debate with Pembina Institute in 2002 has fallen on deaf ears:

[Leadership Kyoto](#) Read the debate [here](#).

Our Friends of Science Society YouTube site features interview clips with economist Dr. Ross McKittrick, Dr. Madhav Khandekar, Dr. Nir Shaviv and coming soon, commentaries from Dr. Neil Hutton and Ken Gregory. We also have all of our previous guest speakers’ videos posted on line.

Be the Change...Speak up.

Unfortunately, we now have new Alberta and federal parties in power who are enamoured with the idea that the elimination of proven and current sources of energy can be replaced with wind and solar power within the next 20 to 30 years. It is possible that their real motivation is to simply justify increased income into their coffers. This would certainly be pleasing to the ever bloating bureaucracy. [Contributor and member Robert Lyman, energy economist of 37 years experience, has a new post on our blog about Solar Energy – unlikely to replace hydrocarbons in the US. Must read [here](#).]

It is imperative that our new governments do a cost-benefit analysis – we don't want to end up like the UK...or Ontario!

We also believe an objective scientific review of the empirical data is in order, rather than accepting without question the agenda of the United Nation's UNFCCC and IPCC organizations.

You can help make that happen by writing or calling your local representatives. Please be civil – it can be frustrating. Otherwise, it appears that the apathy of the general public will not be shaken off until their standard of living and welfare suffer. In the meantime, significant resources will be wasted which could alleviate real pollution, welfare and social problems.

Welcome to Newcomers – Thank you for your Support!

We are encouraged by a noticeable increase in memberships and support. People, realizing the seriousness of the situation, are supporting us by offering their time and resources. Despite making significant progress we still face a great wall of misinformation presented by the mainstream media and vested interests. Please consider participating in our cause in any way that you are able. With the Alberta economy falling into recession we predict that our efforts will be noticeably impaired by a lack of financial assistance.

We thank you, our members, for your support – our success and ongoing efforts are dependent upon you. If any of our members are interested in meeting the directors and attending one of our bi-weekly meetings, or if there is an area of expertise you can offer to our team – or a related blog post or report, please let us know with a quick email to: contact@friendsofscience.org.

Post Paris: Climate Talks and Geopolitics

Our Christmas gift to you is a trio of reports by William Kay, assessing the geopolitical trade war going on behind the scenes of the climate catastrophe hype. Very insightful! You'll find it linked on our blog [here](#).

Merry Christmas and Happy New Year to all. Let's hope we can make a difference in climate policy in Alberta and Canada in the next 60 days – for the next 100 years!

Warren Blair
President, Friends of Science

POLITICAL DEVELOPMENTS

The Paris Climate Summit – COP 21

Going into the talks, the two countries most important to achieving any sort of outcome in Paris were the US and India, respectively the second and third largest emitters of CO₂. (China, the number one emitter, was determined not to play the spoiler as it did in Copenhagen.) As the Indian publication *Business Standard* [reported](#), the US strategy communicated in a “non-paper” to select countries was for a successive round of pledges under the proposed Paris agreement to be determined independently by each country and not through a process of international negotiation. Further, it wanted to do away with the wall of differentiation between developed and developing countries, as well as any notion of historical responsibility.

India's strategy was to [push](#) for a polluter-pay policy under which rich countries would deliver “climate justice” by freeing up “carbon space” for the developing world to generate emissions as they grow. India refused to commit to any absolute emissions reduction targets, instead vowing to slash their intensity by up to 35% by 2030, while doubling coal production in the next five years.

Well before Paris, most of the ~195 countries had joined one or more negotiating alliances. The blog Carbon Brief [published](#) an interactive web page describing the goals of these alliances and their membership. The US belongs only to the Umbrella Group, a cross-continent group of developed countries that have been considered less-than-enthusiastic about climate change in the recent past. India claims membership in four groups of developing nations.

In contrast to Copenhagen, the heads of state and government made their appearances at the start of the conference, rather than the end. Thus, the first day, November 30, was the [Leaders' Event](#), where 147 leaders had five minutes each to address the plenary (actually three to allow for changeovers and introductions). US President Obama's 12-minute [address](#) began with an [apology](#) on behalf of his country that "...not only recognizes our responsibility in creating this problem, we embrace our responsibility to do something about it." Canada's Justin Trudeau [credited](#) the provincial and territorial leaders accompanying him in Paris for having already taken on a leadership role on climate change in this country, namely cap-and-trade, a ban on coal-fired generation, carbon capture and revenue-neutral carbon taxes. India's PM stressed that any agreement must [include](#) differentiation in responsibilities and actions between rich and developing worlds.

As the talks progressed over the following days, the issue of common but differentiated responsibilities stalled any progress as the Like-Minded Developing Countries and the Least Developed Countries blocs [resisted](#) attempts by the rich world to water down the CBDR principle. For their part the US, the EU and other developed countries [wanted](#) poor and vulnerable nations never to ask for "loss and damage" compensation. On December 6 the Canadian environment minister made a surprise [announcement](#) in favour of including a 1.5°C global warming goal (instead of 2°C) in any agreement. On December 10 the talks were [deadlocked](#) on sticky issues of differentiation, mitigation, climate finance, adaptation and capacity building, a mechanism for reviewing and verifying each country's climate action plans, the long-term temperature goal of 1.5°C or 2°C, and compensation for loss and damage.

The conference ended one day late on December 12, with announcement of the [Paris Agreement](#), a 31-page document consisting of its adoption by the COP 21 parties (pages 1-21) and the Agreement itself (pages 22-31). Some key points regarding the Agreement:

Article	Comments
2	<ul style="list-style-type: none"> Aims to hold the global average temperature increase to 2°C and pursue efforts to limit it to 1.5°C (i.e., an aspiration, not a goal). Reflects equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.
4	<ul style="list-style-type: none"> Each Party <i>shall</i> prepare and communicate successive (and progressively more ambitious) nationally determined contributions to reduce GHGs at five-year intervals and pursue domestic measures to achieve the objectives of the contributions. There are no penalties for failing to meet the objectives. Developed countries <i>should</i> undertake economy-wide absolute emission reduction targets. (In a last-minute tweak, "shall" was replaced by "should" so that the Obama administration could avoid having to submit the Agreement for ratification by the US Senate.)
6	<ul style="list-style-type: none"> Parties can pursue voluntary cooperation in the implementation of their nationally determined contributions. (i.e., Parties unable to achieve their contribution objectives can buy credits from others that can.)
8	<ul style="list-style-type: none"> The Warsaw International Mechanism for Loss and Damage <i>may</i> be strengthened and enhanced. (But there is no mandatory provision for loss-and-damage compensation.)
9	<ul style="list-style-type: none"> Developed countries <i>shall</i> provide financial resources to developing countries for mitigation and adaption, and <i>should</i> take the lead in mobilizing climate finance in progressive amounts. But, there's no legally-binding text to hand over the money.
13	<ul style="list-style-type: none"> Provides for an enhanced transparency framework for Parties reporting their emissions and implementation of their nationally determined contributions.
14	<ul style="list-style-type: none"> Provides for global stocktaking at five-year intervals, starting in 2023.
20	<ul style="list-style-type: none"> The Agreement is open for signature by states and regional economic associations (e.g., the EU) from April 22, 2016 to April 21, 2017.

Article	Comments
21	<ul style="list-style-type: none"> The Agreement will enter into force when at least 55 Parties accounting for at least 55% of global GHGs have deposited their instruments of ratification, acceptance, approval or accession.
28	<ul style="list-style-type: none"> Any party can withdraw from the agreement by giving written notice after 3 years from the effective date, to take effect one year after the notification of withdrawal.

In summary, the Obama administration got an agreement enshrining the principle of continued nationally determined contributions, and a deal it hopes won't be subject to ratification by the Senate. Further, despite what President Obama said in his speech, there is no mention of "historical responsibility." India was able to maintain the principle of differentiated responsibilities with no restrictions on its own emissions growth. As a story in *The Indian Express* [explains](#), the Agreement does not define "developed" and "developing" countries – that's left until it comes into effect in 2020. *Bloomberg reports*, the Agreement "... has parts that are specific and parts that are binding – never both at once."

The real winners in Paris were the climate bureaucracies and their hangers-on. Another failure like Copenhagen could have meant an end to the whole circus – the year-end climate summits and intervening meetings. A new committee, the Ad Hoc Working Group on the Paris Agreement, will appear in time for COP 22 in Marrakech, Morocco November 7-18, 2016.

Ian Cameron
Director, Friends of Science

SCIENCE NEWS

Antarctica is gaining Ice

A new paper "Mass gains of the Antarctic ice sheet exceed losses" (Zwally et al 2015) [here](#) shows that the Antarctic Ice Sheet (AIS) has grown in mass by 82 ± 25 billion metric tonnes of ice per year (Gt/yr) between 2003 and 2008. The ice gains in East Antarctica and parts of West Antarctica exceeds the losses in coastal drainage systems and the Antarctic Peninsula. This analysis used the Ice, Cloud and land Elevation Satellite (ICESat) data (2003–08) which measure elevation changes of the ice top. Zwally estimates that the ice gain has reduced sea level rise by 0.3 mm/yr. The European Remote-sensing Satellite (ERS) data (1992–2001) give a similar gain of 112 ± 61 Gt/yr.

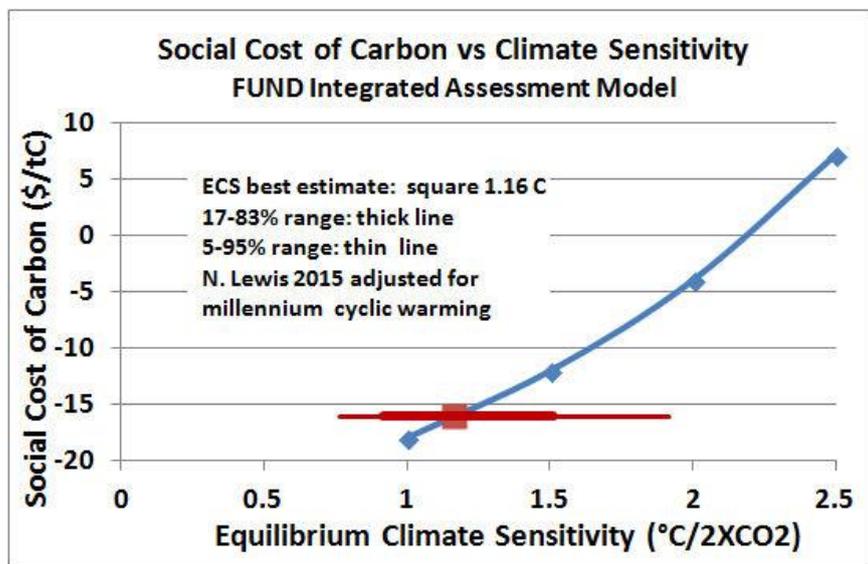
These results are in stark contrast with the IPCC AR5's assertion there was "high confidence" that the Antarctic Ice Sheet had been losing mass at 147 ± 75 Gt/yr over 2002-2011. The IPCC high mass losses are based on GRACE satellite data that measures gravity changes. However, both methods of measuring Antarctic ice depend on models that estimate Glacial Isostatic Adjustment (GIA), which is very uncertain. The impact of the problematic GIA adjustments is six times larger on GRACE estimates than on altimetry estimates.

Previous estimates of Antarctic ice mass during the last ice age were too high, and melting during the Holocene was overestimated, so that past uplift estimates were too high. McIntyre says that the estimated size of GIA "has fallen quite dramatically, with estimates of mass loss falling in conjunction." The IPCC AR5 "adopted mass loss estimates that were far larger than up-to-date technical literature." The IPCC ignored recent low ice loss results and used only discredited higher values using GIA adjustments that were known by the IPCC authors to be obsolete.

This paper had been reviewed by Jim Steele of San Francisco State University [here](#), and by Steve McIntyre of Climate Audit [here](#). See the FoS summary [here](#).

The Economic Impact of Climate Change

The most important parameter in determining the economic impact of climate change is the sensitivity of the climate to greenhouse gas emissions. Climatologist Nick Lewis analysis [here](#) using an energy balance method estimated Equilibrium Climate Sensitivity (ECS) at 1.45 °C from a doubling of CO₂ in the atmosphere (about 140 years) with likely [17 - 83%] range of 1.2 to 1.8 °C. This analysis does not correct for the long-term natural warming from the Little Ice Age. Adjusting for natural cycles over the last 2000 years from Ljungqvist 2010 (graph [here](#)) gives a best estimate for ECS of 1.2 °C with a 17-83% range 0.9 to 1.5 °C.



The FUND integrated assessment model (IAM) accounts for the social costs and benefits of greenhouse gas emissions. The two other models do not include the benefits of CO₂ fertilization. The FUND model shows that Canada benefits from emissions by 1.9% of gross domestic product by 2100. Anthropogenic climate change will have only positive impacts in Canada which increase throughout the 21st century. The FUND IAM shows that on a global basis, using the best estimate of ECS of 1.2 °C, gives a Social Cost of Carbon (SCC) of -16 US\$/tC, which is very beneficial. The likely range is -19 to -12 US\$/tC, and it is extremely likely [95% confidence] to be less than -5 US\$/tC.

These results show that instead of imposing a carbon tax on fossil fuels, there should be a subsidy equal to about 16 US\$/t of carbon emitted. The graph shows the SCC (blue line), and the ECS best estimate as indicated by the brown square. The thick brown line shows the 17 - 83% probability range, and the thin brown line shows the 5 - 95% probability range of the ECS estimate. The FUND model values are given [here](#).

New Study Shows NOAA Overestimate US Warming By 59%

A new paper presented to an American Geophysical Union fall 2015 meeting shows that bad siting of temperature stations has resulted in NOAA overestimating US warming trends by 59% since 1979. The study identified a subset of 410 US Historical Climate Network stations, that have not been moved, had equipment changes, or changes in time of observations, and thus require no "adjustments" to their temperature record to account for these problems. The news release for the study says, "*The study focuses on finding trend differences between well sited and poorly sited weather stations, based on a WMO approved metric Leroy (2010) for classification and assessment of the quality of the measurements based on proximity to artificial heat sources and heat sinks which affect temperature measurement.*" The trends are:

Compliant (well sited)	0.204 °C/decade
Non-compliant (poorly sited)	0.319 °C/decade
NOAA adjusted official	0.324 °C/decade

The news release states, "*We believe the NOAA/NCDC homogenization adjustment causes well sited stations to be adjusted upwards to match the trends of poorly sited stations.*"

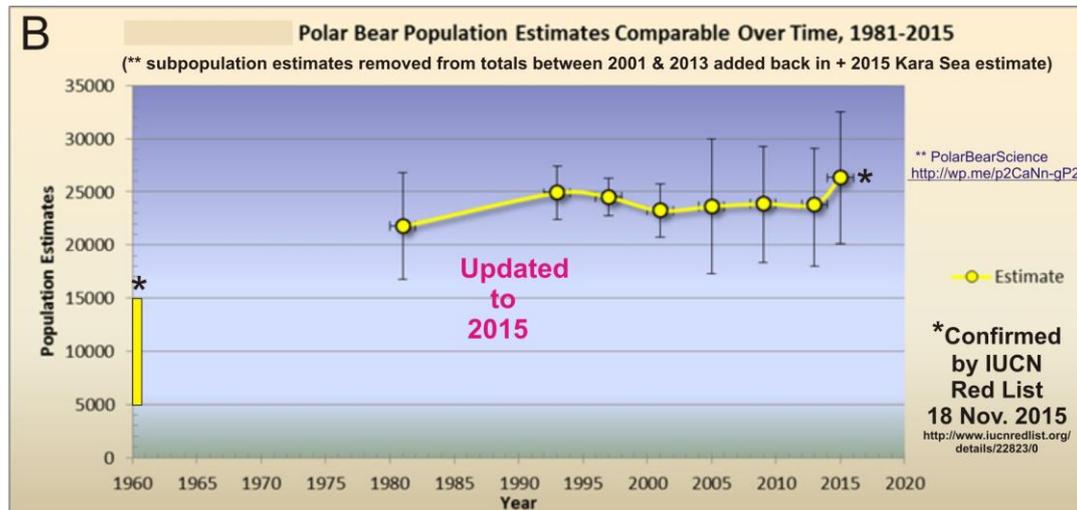
The news release is [here](#). The WUWT blog posting is [here](#).

Thick Spring Ice is the Biggest Threat to Polar Bears

Polar bear expert Dr. Susan Crockford writes, "Thick spring ice due to natural causes is currently the single biggest threat to polar bears. *Not* declining summer sea ice – **thick spring ice**. Polar bear deaths due to cyclical changes in Arctic sea ice thickness in the spring have continued despite rising CO₂ emissions and

declining summer sea ice extent (last major incident, 2004-2006): there is no reason to expect this will not continue. Over the last 40 years or so, marked polar bear population declines have virtually always been associated with thick spring ice that reduced local ringed seal prey." The seal go elsewhere or die. Polar bears emerging from their winter dens can't find seals to hunt, so the cubs and mothers die or move out of the region to find better seal hunting areas.

The global polar bear numbers are higher than they have been in more than 50 years, although the estimates are uncertain. The figure below by Dr. Crockford shows that there are now approximately 26,000 polar bears. See Dr. Crockford's post [here](#).



Ken Gregory
Past Director, Friends of Science

DONATIONS

To accomplish our goal of educating the broader public and policy makers on the diversity of views on climate change, and the important natural factors, we need financial help from our members. Thank you for your help to date. **This debate matters, you are making a difference.**

Please continue to make donations to Friends of Science. We can be a voice for your climate change issues – and we thank all of you who have given us tips on the misinformation they see in the marketplace. Donations made directly to Friends of Science will help us bring in quality guest speakers, expand our media presence and create a platform for informed debate. To make a contribution at www.friendsofscience.org; click on DONATE in the upper right of the home page. Alternately, you can mail donations to Friends of Science at the following address:

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