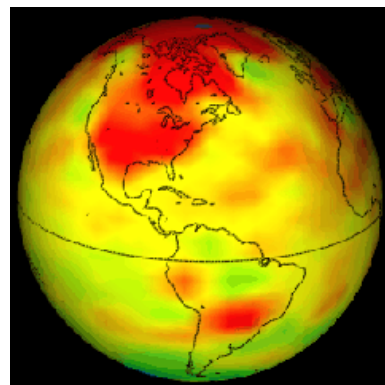


BlindSpot climate briefing
by James Greyson, 1st May 2008

Climate change is not going away, it's getting out of hand. With luck it can still be reversed but not with the kind of thinking that causes broad problems then offers narrow solutions. Humanity need not remain endangered by its habits. The reality gap between solutions and problems need not remain neglected - it can inspire responses at a sufficient scale and speed. New tools can overcome old obstacles. This briefing introduces two of these tools which were designed at the UK think-tank BlindSpot. This work is being published by the NATO Science Programme and publicised by the UN Climate Neutral Network. Other collaborations are welcomed.

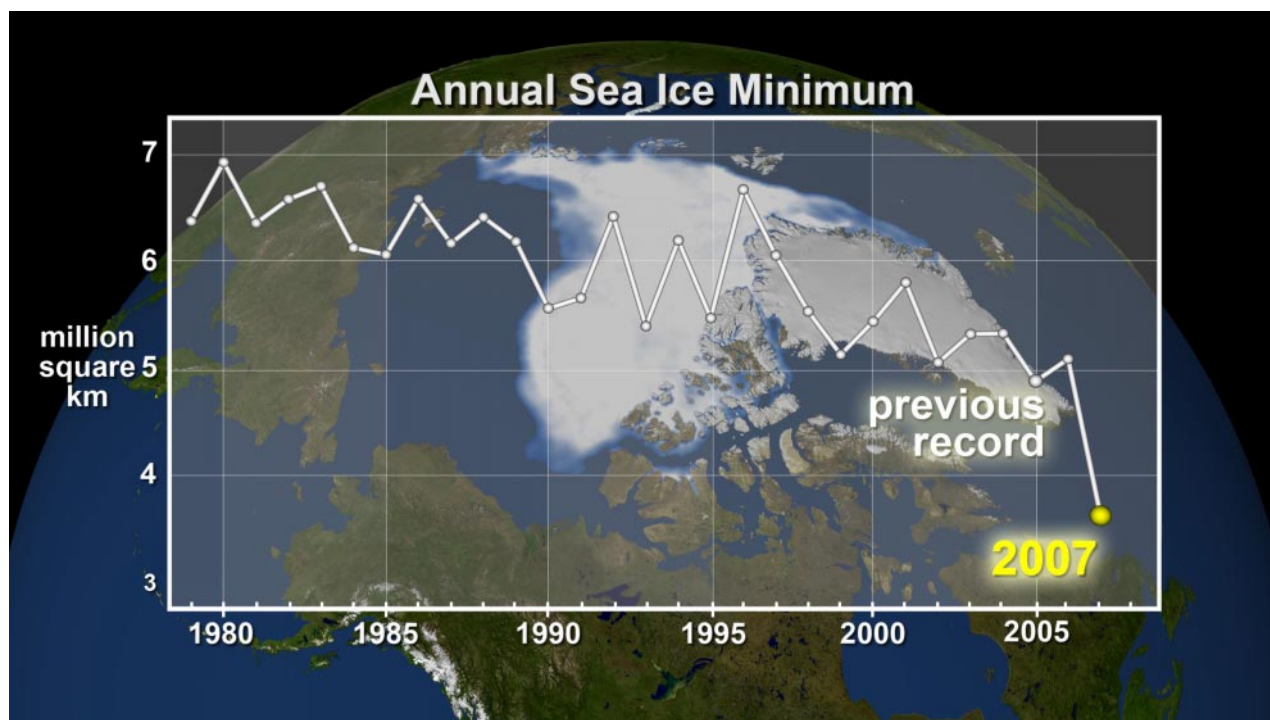


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- REVERSING CLIMATE CHANGE -

The world is changing - let's try to keep up

Polar ice is melting fast, much faster than scientists had predicted. This simple fact changes everything. Disappearing polar ice means that greenhouse gas levels in the atmosphere are already too high. Until atmospheric levels are reduced there is a constantly growing risk that positive feedbacks will take over and the opportunity to reverse climate change will pass. Of course this doesn't just affect polar bears. Without trying to sound dramatic, we're talking about how to prevent runaway climate change and save the world.



At the end of each summer, the sea ice cover reaches its minimum extent. The 2007 minimum is about 38% lower than the climatological average. This image shows the annual sea ice minimum from 1979 through 2007. Image: NASA, data: NSID, University of Colorado at Boulder.

We can forget about business as usual, but also sustainable development as usual. Decades of effort to cut emissions has coincided with steadily rising emissions. This reveals the effectiveness of cutting emissions as a strategy. Climate neutrality, or zero net emissions is a handy stepping stone to a new strategy which cuts atmospheric greenhouse gas levels. Net negative emissions is a foreseeable necessity.

The challenge of climate change is not escapable by looking the other way. Denial and delay could mean 'game over' for civilisation as we know it. When the ship is sinking there is little comfort in finding a dry seat or in debating plans to gradually slow the incoming torrent. Instead hope may be found only in helping everyone on board to patch the leaks and bale out the water faster than it pours in. This task defines a positive self-image for humanity and the chance of a positive role on the planet.

Notes:

Polar ice. http://www.nasa.gov/topics/earth/features/seaice_conditions_feature.html

Positive Feedbacks. <http://www.apollo-gaia.org/BaliandBeyond.htm>

Zero emissions. <http://www.agu.org/journals/scripts/highlight.php?pid=2007GL032388>



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- SEE GLOBAL BLINDSPOTS -

"If the world sets limits and governments adjust taxes and everyone does what they can..." This is a familiar call over recent decades despite the widening reality gap between what's being done and what needs doing. The most pressing global problems are getting out of hand. Many 'solutions', such as armed force, waste incineration and turning food into biofuels, make things worse. Something about the way that global problems are approached seems to block effective solutions. Albert Einstein might again advise, "The problems we have today cannot be solved by thinking the way we thought when we created them." A few common blindspots have limited our thinking on global problems. By noticing these blindspots it's possible to shape responses on a new scale of ambition with the potential to work fast enough.

The interconnectedness of global problems is often mentioned in passing within strategies which go on to treat the issues separately. Nobody has sat down and worked out that each issue really can be tackled effectively by disconnected efforts. Dividing up problems is just more convenient for a society that divides up knowledge and responsibilities. The climate problem magically appears more manageable when placed into the small box marked 'carbon emissions' rather than the big box marked 'sustainable development'. However this magic has also kept effective solutions hidden for decades. Instead of accepting that any rise in atmospheric waste concentrations is dangerous, society waits for certainty in agreeing 'safe' levels of emissions. Instead of cutting the cloth of economics to fit a secure and stable world, society allows the world to be carved up to suit economics. Perhaps it's time to stop blaming political will and start defining problems in ways that allow them to be solved?

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The shape of global economics is a huge blindspot. The historical economy acts linearly, like a conveyor belt carrying natural resources to become products and then wastes. Accumulation of wastes in the air drives climate change, which is one of many acute ecological, social and economic problems of the linear development pattern. Problems have been hidden in the past because losses of resources and repairs of damage contributed to economic activity. Today growth is instead swamped by many forms of economic inactivity. Wealth which accumulates with elites doesn't circulate to help others. Declining hope for the future brings declining investment. People affected by illness or conflict cannot work. Wasted resources and barren land are unusable. The supply of key resources such as oil and gas can no longer provide for society's dependence on them. Here is the future of growth with linear economics.

Neither growth nor the climate can be protected by limiting or tweaking the linear economy but there is also the option of fundamentally reshaping economics. The alternative development pattern, of *circular economics*, was proposed by Kenneth Boulding back in 1966. In essence the ends of the linear conveyor could be joined up so that people and the biosphere cooperate to recycle all resources (including carbon). Circular economics has been adopted as a national goal in China's current 5 year plan as a strategy to reconcile growth with their acute ecological problems. Globally, the future of growth lies with circular economics.

Notes:

Progress with global issues: <http://www.earth-policy.org/Indicators>

China: http://english.mep.gov.cn/Policies_Regulations/policies/Frameworkp1/200712/t20071227_115531.htm

An engaging animation about linear economics: <http://www.storyofstuff.com>



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- SAVE THE WORLD FAST -

Find the right tools for the job

Humanity need not remain endangered by its blindspots. Rethinking long-cherished assumptions is a bit uncomfortable but it can happen quickly. A switch from failing linear economics towards sustainable circular economics could also happen quickly, using tools designed for the job. Suitable tools should be shared without delay, for example by using the international political momentum around climate change. If these tools were in use globally then the speed of response to climate change and other pressing issues should exceed all expectations based on decades of persistent unsustainability. Imagine a climate stability investment scheme the size of the global economy, which reinvigorated every local economy.

Implementing circular economics requires new tools which work by changing the rules of the game, rather than by restricting or penalising players. Key principles of 'polluter pays' and 'producer responsibility' can be embedded in markets and overseen by government. A financial incentive can be created for products to be returned after use as a new resource for nature or for people. This would build a level playing field with an expectation that products of all kinds (including energy-related products) should not end up as wastes in the land, water or air. This single incentive could provide for energy and resource efficiency, closed-loop technical infrastructure and reversal of the loss of nature. It would make sustainability economically achievable, sparking the necessary mobilisation without subsidising decoy 'solutions' that make things worse.

In the early days of fire insurance, premiums funded fire brigades to stop damage rather than funding payouts for damage. Today there is again a role for preventive insurance to handle global problems caused over long periods by numerous players. Regular insurance can't handle this; the catastrophic human and ecological losses of (for example) runaway climate change can only be tackled preventively. Significant producers would be expected to insure the risk that their products end up as waste in ecosystems. This would stimulate producers to reduce their waste risk by deploying fewer resources to meet more needs. They would also invest more in industrial, social and ecological capacity to turn used materials into new resources. Producers choosing not to invest would pay higher premiums which add to their costs and fund investments elsewhere. Since all human needs can be met without creating a waste risk the market would innovate to make *precycled* no-waste products the norm. Cooperation with nature and between people would be supported, along with the lowest long-term prices and governmental controls.

This tool, *precycling insurance* has been developed at BlindSpot and academically peer-reviewed twice. The second paper, for a NATO Advanced Research Workshop, also outlines a second tool designed to reverse the self-defeating trend of ever greater global spending on weapons and to free up funds for more preventive investments in global security (including climate stability). Weapons-related income could simply be omitted from national economic growth calculations. This would not obstruct national defence and countries which were able to reduce their dependence on combative problem-solving would be rewarded with higher growth. Nations can now signal their peaceful intent by adopting *Gross Peaceful Product (GPP)* and making economic growth a weapon for peace and security.



Notes:

Greyson J, *An economic instrument for zero waste, economic growth and sustainability*, Journal of Cleaner Production (2006), doi:10.1016/j.jclepro.2006.07.019

Greyson J. *Systemic Economic Instruments for Energy, Climate and Global Security*, in F. Barbir and S. Ulgiati (Eds.), Sustainable Energy Production and Consumption. Springer Verlag, NATO Science for Peace Series (in press 2008).



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