

COMMENTARY: Business leaders

Åsa Persson and Johan Rockström

As the United Nations climate negotiations flounder, businesses are forging ahead with their own low-carbon standards. Have we passed a political tipping point for momentum on carbon action?

If the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) negotiations in Cancún last December (COP16) offered recovery from the political hangover after the COP15 negotiations in Copenhagen in 2009, then the negotiation meetings so far this year leave much to be desired, and put the possibility of significant progress at COP17 in Durban this December at serious risk. Prospects for a second commitment period under the Kyoto Protocol, which would require a decision in Durban, are getting bleaker by the day, and a similar legally binding agreement is not realistic in the short term.

It may be surprising, then, that we are — cautiously — more optimistic now about the momentum for climate action than before the Copenhagen meeting.

This is because we now sense a greater willingness, as well as readiness, by business to make bold investment decisions for a low-carbon future. At the business community's World Climate Summit, held just before the Cancún negotiations, Lord Nicholas Stern observed that "the new industrial revolution has begun, and the business world is leading this challenge"¹. For example, Danish energy company DONG has set itself a target to reduce its carbon dioxide emissions to 15% of current levels by 2040, by suspending many of its coal power stations and switching some over to biomass. DONG is reportedly ahead of

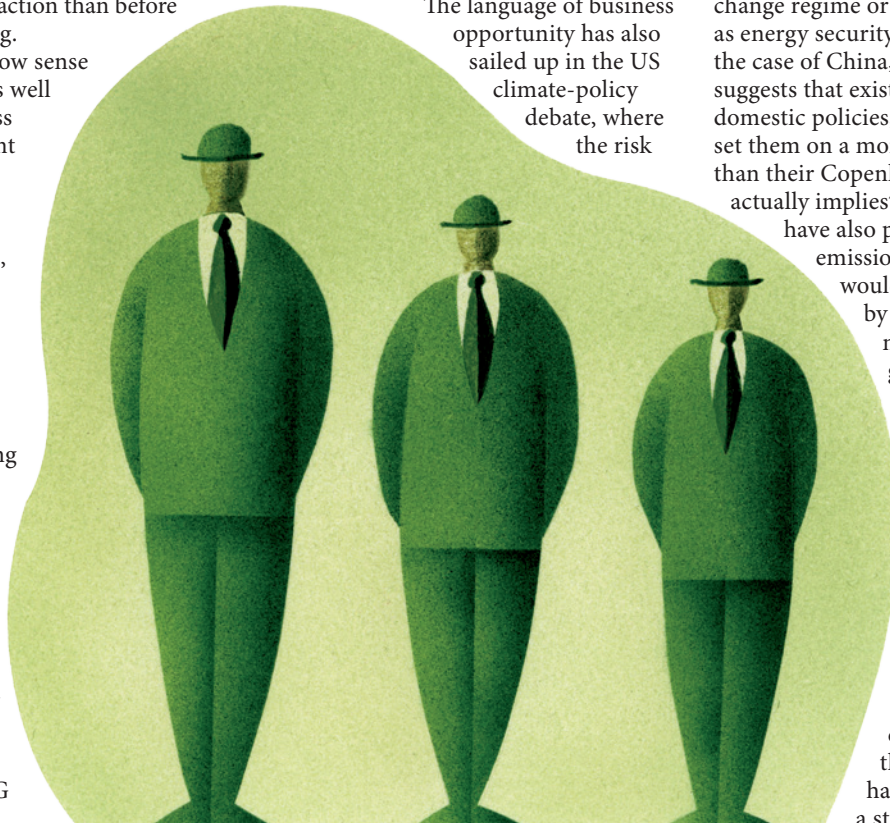
schedule. On the other side of the Atlantic, Walmart is to use only renewable energy to power its stores, and the company is investing in solar, wind and geothermal energy. In a rare outspoken tone for Chinese business leaders, air-conditioning tycoon Zhang Yue recently demanded 'more laws' on energy consumption from the Chinese government. His business is now branching out into heavily insulated, energy-efficient building segments.

These examples are part of a broader business trend. A survey of 500 of the world's largest companies in 2010 showed that 86% saw 'significant opportunities' from climate change mitigation, and 78% saw 'significant risks'². Critically, the perception of opportunity now outweighs that of risk, on average and across sectors.

The language of business opportunity has also sailed up in the US climate-policy debate, where the risk

of losing out on shares in a \$2.3 trillion market for clean technology was presented as an alternative justification to moral or climate-impact arguments for a cap-and-trade scheme. One study has suggested that early winners would be China, Germany and Spain, followed by Japan, Denmark and South Korea, owing to these countries' early and strong domestic regulation and support³. On this basis, for purely economic and geopolitical reasons, US action on climate is an urgently needed strategic step.

Another reason for cautious optimism is that an increasing number of national governments, including emerging economies, are taking action on emission reductions domestically — whether motivated by the international climate change regime or domestic concerns such as energy security or energy efficiency. In the case of China, independent analysis suggests that existing and announced domestic policies, if fully implemented, set them on a more ambitious trajectory than their Copenhagen Accord pledge actually implies^{4,5}. Brazil and South Africa have also pledged more ambitious emission-reduction targets than would be considered equitable by several effort-sharing models. The South Korean government has profiled itself internationally as a champion of 'green growth' and is devoting 2% of its annual gross domestic product to push such policies forward. The United States' experience of proactive state-level climate action in the absence of a federal policy is well-documented. In Europe, the Danish government has announced it will draft a strategy for becoming



independent of fossil fuels by 2050, and recommends that the European Union takes the same route⁶. Achim Steiner, Executive Director of the United Nations Environment Programme, noted after Cancún that “indeed, the world is witnessing an extraordinary mobilization of national-level projects and policies that are shifting economies onto a low-carbon path”⁷.

How do we make sense of these seemingly contradictory trends: proactive business and domestic action under stagnant international negotiations? Wasn't an international agreement supposed to be the main stimulus for national and business action to mitigate climate change, in line with theory on collective action? A common response after the Copenhagen failure was that the UNFCCC process has effectively stagnated and thus become irrelevant in light of the urgency of the problem. It has been argued that a consensus-based decision-making approach with almost 200 countries has become so impractical as to render it obsolete. Furthermore, from a theoretical point of view, Nobel Laureate Elinor Ostrom notes that the international cooperation ‘game’ around climate change does not fulfil important prerequisites for successful collective action, such as a scale of the problem that permits trust to be developed and maintained between actors⁸.

An even stronger critique of the UNFCCC process is that it is actually counterproductive to effective domestic and business action. An increasingly common argument is that the process builds on a framing of climate change as a ‘problem’ and its management as a ‘burden’ to be shared, hence its portrayal as a zero-sum game. This framing provides disincentives for unilateral action. The alternative would be to define actions to mitigate climate change as an opportunity. We already see such reframing efforts with the shift in focus towards themes such as ‘green economy’ and ‘low-carbon development’ in the policy debate.

These critiques would suggest that we observe domestic and business action in spite of, rather than because of, the intergovernmental quest for an international agreement. We think that this is a simplistic understanding. Instead, we propose that there is a crucial interdependence between the (as of yet unsuccessful) international regime and what happens beyond the regime at the domestic level and in the private sector. Progress at one level depends on action at the other. The UNFCCC process, with all its flaws, has provided requisite scientific and

political legitimacy of climate change as a public concern, it commissions and creates a continuous demand for climate science through the Intergovernmental Panel on Climate Change, and it has agreed on the overall goal of limiting anthropogenic climate change to 2 °C. Most importantly, though, it creates expectations.

Expectations are crucial to any investor or decision-maker. Students of regulation theory know that agents do not merely react to new regulations and policies, but anticipate them. Hence, the threat of future regulation can be as effective as implemented regulations in stimulating action, especially when investments are as long term as they are in, for example, the energy sector. The other side of the risk/opportunity coin is that investors also anticipate new markets and higher demand for certain products and services. A good example of anticipatory action is the recent call by 259 investors collectively representing assets worth more than \$15 trillion for stronger action and more stringent agreements under the UNFCCC, as the economic disruptions they foresee from climate change are far more severe than the recent financial crisis⁹.

We have no reason to believe that expectations change in a linear or incremental way, as political processes do not evolve in a linear or gradual way. We can draw on the vocabulary used in ecosystem and Earth system science here, namely that there can be thresholds and tipping points along a certain path or function. One interpretation of the contradiction described above — that business and domestic action on climate change has significantly intensified in the absence of a comprehensive international agreement — is that we may have passed a political threshold in the international negotiation process that has made expectations ‘tip over’ in favour of low-carbon business models, unleashing creativity, innovation and entrepreneurship.

We may have crossed one such political threshold, but there will inevitably be many more ahead. It is clear that the current market price on carbon is too low to incentivize action on the scale needed — it needs to approach US\$50 per tonne of carbon dioxide, and requires more ambitious emission targets. Developed countries also need to start mobilizing the \$100 billion per year by 2020 that was promised in Copenhagen to developing countries.

Furthermore, there are conceptual thresholds to cross. For example, we need to shift the ‘polluter pays’ obligation onto consumers to foster individual

responsibility for climate change. The magnitude of the climate change challenge means that we must move from incremental improvement to transformative change of our economies and societies, and time is getting short — 2020 is now less than a decade away.

Considering the gap between the 2 °C target and current pledges¹⁰ — which with a revised 1.5 °C target will only grow bigger — is it naïve to be optimistic? It is true that science and observations of current climate change impacts indicate an increasingly dire predicament for humanity. However, even small successes and tipping points — such as the one we may have recently witnessed — should be recognized.

Providing a complete and legally binding international agreement is not the be-all, end-all of the ongoing UNFCCC process in the short term. Its perhaps more important function is the expectations it creates and anticipatory action it induces. Recently, business and national-level climate policies have been more important in driving change. However, binding commitments for the long term are required to ensure the credibility on which these expectations rest. To maintain this momentum and institutionalize the business case for climate action, the international negotiations process needs to step up with a post-Durban political roadmap for securing international binding commitments. □

Åsa Persson and Johan Rockström are at the Stockholm Resilience Centre and the Stockholm Environment Institute, Kräftriket 2B, SE-106 91 Stockholm, Sweden.
e-mail: asa.persson@sei-international.org.

References

1. <http://www.wclimate.com/world-climate-summit>
2. PricewaterhouseCoopers Carbon Disclosure Project 2010: *Global 500 and S&P 500 Report Highlights* (Carbon Disclosure Project, 2010); available via <http://go.nature.com/7ZlsNO>.
3. Gordon, K., Wong, J. L. & McLain, J. T. *Out of the Running? How Germany, Spain, and China Are Seizing the Energy Opportunity and Why the United States Risks Getting Left Behind* (Center for American Progress, 2010); available via <http://go.nature.com/DuGh1x>.
4. Höhne, N., Moltmann, S. & Hagemann, M. *Emission Reduction Proposals by Emerging Economies* (Ecofys, 2010); available via <http://go.nature.com/LmuGyb>.
5. Jotzo, F. *Comparing the Copenhagen Emissions Targets* CCEP working paper 1.10 (Centre for Climate Economics & Policy, Crawford School of Economics and Government, Australian National Univ., 2010); available via <http://go.nature.com/3rdsPH>.
6. <http://www.kemin.dk/en-US/NewsAndPress/news/2010/Sider/Climatecommissionsreportatoolbox.aspx>
7. <http://www.unep.org/Documents/Multilingual/Default.asp?DocumentID=655&ArticleID=6879&l=en&t=long>
8. Ostrom, E. *Glob. Environ. Change* **20**, 550–557 (2010).
9. http://www.iigcc.org/_data/assets/pdf_file/0016/15154/2010-Global-Investor-Statement-Press-Release.pdf
10. Chen, C. et al. *Cancun Climate Talks — Keeping Options Open to Close the Gap* (Climate Action Tracker, 2011); available via <http://go.nature.com/EJ93gz>.

Published online: 6 November 2011