



Dear friends,

2020 was a difficult year for climate diplomacy, with delays to many processes, yet the underlying crisis showed no signs of flagging. The Climate Ambition Summit on 12 December helped restore some of the lost momentum, but as I noted at the time, even amidst a global pandemic, carbon dioxide concentrations are still rising, and the world is still far off doing what is needed to keep global warming below 1.5°C. The state of the planetary emergency has become such that, in addition to urgent emission cuts, additional approaches must now be considered – and we do not have the luxury of time to delay this process.

C2G saw some progress in putting the governance of these approaches on the international agenda, in UN processes (e.g., via the UNFCCC research dialogue); in regional groups, through non-UN processes, such as the G2O; and in outreach to many non-state actors, including youth groups. This was, in part, driven by policymakers starting to look at the practical reality of achieving net zero emissions by 2050, which would need some element of Carbon Dioxide Removal.

We also spent much of the last quarter expanding our online series, <u>C2GLearn</u>, <u>C2GDiscuss</u> and <u>C2GTalk</u>. In total, we have now hosted more than 40 events with more than 60 international experts, which are available in 4 languages.

In 2021, we aim to collaborate with other knowledge providers to offer one more set of live Q&A sessions for our C2GLearn series, and focus on building up C2GDiscuss and C2GTalk. We also look forward to launching a special issue of <u>Global Policy</u>, with a range of new papers which we hope can inform the IPCC's upcoming Sixth Assessment Report.

Despite the continued pandemic, 2021 may yet breathe new life into the Paris Agreement process. Net zero commitments by major powers, such as China and the EU, and the return of the US to the climate table give grounds for optimism. But too many leaders across society are still not responding as though they understand this to be an emergency. It's time for that to change.

### Work with partners

### **Climate Vulnerable Forum**



Solar Radiation Modification: Governance challenges and options considering the interests of countries most vulnerable to climate change

### **UNFCCC Climate Dialogues: Twelfth meeting of the research dialogue**



<u>Large-scale carbon dioxide removal: Are we ready? How can governance help?</u>

#### **LEDS LAC**



Connecting Carbon Dioxide Removal Approaches, Sustainable

Development Goals and Zero Net Emissions Strategies in Latin

America and the Caribbean

### **Global Policy**

### **Targeted Geoengineering: Local Interventions with Global Implications**

By John C. Moore, Ilona Mettiäinen, Michael Wolovick, Liyun Zhao, Rupert Gladstone, Ying Chen, Stefan Kirchner, and Timo Koivurova

### A Code of Conduct for Responsible Geoengineering Research

By Anna-Maria Hubert

### **Perspectives Climate Research**

A C2G-commissioned paper was published in Climate Policy:

### Potential implications of carbon dioxide removal for the sustainable development goals

By Matthias Honegger, Axel Michaelowa, and Joyashree Roy



# <u>Is the multilateral system equipped to govern climate-altering approaches?</u>

An interview with Paul Watkinson
Former Chair of the UNFCCC Subsidiary Body for Scientific and
Technical Advice



# Are we going to be at the table when climate-altering approaches are considered?

An interview with Ambassador Elizabeth Thompson
Permanent Representative of Barbados to the United Nations



## <u>Is it time to consider additional climate-altering approaches</u> to tackle the planetary emergency?

An interview with Johan Rockström

Director of the Potsdam Institute for Climate Impact Research

### C2G Blog



## $\underline{\text{Time to learn about all the options to tackle climate change}}\\$

By Janos Pasztor

Analysts say that even if all the net zero pledges made so far are met, warming by 2100 would be at least 2.1°C. And many countries are simply not taking the near-term action necessary to achieve those pledges. The state of this emergency has become such, that in addition to urgent emission cuts, additional approaches are now needed and increasingly so with more delays in transformative emission reductions.



### **Could climate interventions slow the melting of the cryosphere?**

Guest post by John Moore

While some of the at-risk parts of the cryosphere (such as Arctic summer sea ice) could potentially be preserved with solar geoengineering approaches that cool the entire planet, other parts cannot be saved by simply lowering the surface temperature. Locally targeted interventions represent a different approach from global geoengineering schemes, the goal being to counteract a specific harmful climate outcome with global implications.



# <u>Implications of Carbon Dioxide Removal for the Sustainable</u> <u>Development Goals</u>

Guest post by Matthias Honegger, Axel Michaelowa, and Joyashree Roy In a new research paper published in Climate Policy, we mapped the potential implications that the scientific literature has identified to date, and where knowledge gaps remain. Our article aims to trigger interest in much more rigorous and specific examination of the possible implications of large-scale CDR implementation, informing the design of policy instruments aiming at CDR promotion.



# <u>Developing standards for emerging approaches to climate change</u> Guest post by Klaus Radunsky

In the potential development of these emerging approaches, the role of internationally agreed standards will be crucial. Markets and industry need urgent guidance on these topics, because of the significant lead times required for large-scale implementation. To that end, the International Organization for Standardization is already preparing standards in areas that have not been addressed by the negotiations under the United Nations Framework Convention on Climate Change (UNFCCC), such as radiative forcing management and carbon neutrality.

# C2GLearn, C2GDiscuss and C2GTalk are available in Chinese, French and Spanish

This quarter, **C2GLearn** provided the opportunity of more than 30 hours of question-and-answer sessions with more than 50 international experts, to discuss their presentations on the basics and specific governance challenges of climate-altering approaches. All events can be viewed online in English, as well as:

世界如何治理 新兴的改变气候的方法?

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### **C2G Stakeholder Survey**

Thank you to those who responded to our stakeholder survey; your responses will provide valuable inputs to guide and improve our future efforts. If you would like to share other comments with us, please send an email to: <a href="mailto:generalsurvey@c2g2.net">generalsurvey@c2g2.net</a>







C2G, an initiative of Carnegie Council for Ethics in International Affairs, seeks to catalyse the creation of effective governance for emerging climate technologies and approaches, in particular for solar radiation modification and large-scale carbon dioxide removal. To achieve this, it aims to expand the conversation from the scientific and research community to the global policy-making arena, and to encourage society-wide discussions about the risks, potential benefits, and ethical and governance challenges. C2G is Impartial: it is not for or against the research, testing or potential use of any proposed method or technology. These are choices for society to make.

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