

Publikationen

Dr. Miranda Böttcher

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Aufsätze mit Begutachtungsverfahren

- Sarpey, C.-B., Avrutin, S., Steenkamp, R., Oschlies, A., Bernitt, U., **Böttcher, M.**, Mengis, N., Proelss, A. (2026). Monitoring Environmental Impacts of mCDR Field Tests: CDRmare HUB Workshop Report. pp. 1-19, DOI: <https://doi.org/10.3289/CDRmare.58>
- **Boettcher, M.**, Winkler, M., & Michaelowa, A. (2025). Accounting and monitoring challenges for blue carbon enhancement in national climate policy targets and international carbon markets. *Carbon Management*, 16(1). <https://doi.org/10.1080/17583004.2025.2585895>
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- Vivian, C., **Boettcher, M.** et al. (2025). [A Scientific Summary for Policy-Makers: the State of the Science for Marine Carbon Dioxide Removal \(mCDR\)](#) in: Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), UNESCO-IOC, IOC Technical Series, 209, 2025.
- Muri, H., Sulpis, O., Argüello, G., Baker, C. A., **Böttcher, M.**, García-Ibáñez, M. I., Kuliński, K., Landolfi, A., Landschützer, P., McGovern, E., Ninčević Gladan, Ž., Oschlies, A., Yfantis, E. A. (2025). *Monitoring, Reporting and Verification for Marine Carbon Dioxide Removal*. Muñoz Piniella, A., Rodriguez Perez, A., Kellett, P., Alexander, B., Bayo Ruiz, F., Heymans, J. J. [Eds.] Future Science Brief N°. 13 of the European Marine Board, Ostend, Belgium. ISSN: 2593-5232. SBN: 9789464206388. DOI: <https://doi.org/10.5281/zenodo.17435116>
- [Distinguish between feasibility and desirability when assessing climate response options](#), in: npj Clim. Action 4, 34, April 2025, <https://doi.org/10.1038/s44168-025-00237-2> (with Lukas Tank, Lieske Voegt-Kleschin, Matthias Garschagen, Nadine Mengis, Antonia Holland-Cunz, Gregor Rehder & Christian Baatz).
- [A Holistic Assessment Framework for Marine Carbon Dioxide Removal Options](#), in: Environmental Research Letters, 40, 5, April 2025, <https://doi.org/10.1088/1748-9326/adc93f> (with Christian Baatz, Lukas Tank, Lena-Katharina Bednarz, Teresa Maria Morganti, Lieske Voegt-Kleschin, Tony Cabus, Erik van Doorn, Tabea Dorndorf, Felix Havermann, Wanda Holzhüter, David Keller, Matthias Kreuzburg, Nele Matz-Lück, Nadine Mengis, Christine Merk,

Yiannis Moustakis, Julia Pongratz, Hendrikje Wehnert, Wanxuan Yao & Gregor Rehder).

- [Exploring site-specific carbon dioxide removal options with storage or sequestration in the marine environment – the 10 Mt CO₂ yr⁻¹ removal challenge for Germany](#), in: Earth's Future, 13, April 2025, <https://doi.org/10.1029/2024EF004902> (with Wanxuan Yao, Teresa M. Morganti, Jiajun Wu, Malgorzata Borchers, Anna-Adriana Anschütz, Lena-Katharina Bednarz, Amrita Bhaumik, Kremena Burkhard, Tony Cabus, Allison Chua, Isabel Diercks, Mario Esposito, Michael Fink, Mondane Fouqueray...).
- [The potential of the BBNJ clearing house mechanism to enhance knowledge pluralism in marine carbon dioxide removal assessment](#), in: Frontiers in Climate: Carbon Dioxide Removal, Vol 6, December 2024, <https://doi.org/10.3389/fclim.2024.1497476> (with Kerry Brent).
- [The rise, fall and rebirth of ocean carbon sequestration as a climate 'solution'](#), in: Global Environmental Change, 85, March 2024, <https://doi.org/10.1016/j.gloenvcha.2024.102820> (with Kari de Pryck).
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- [Foresight*: Pathogens from the Permafrost](#), SWP Comment 2024/C 23, Stiftung Wissenschaft und Politik, June 2024, <https://doi.org/10.18449/2024C23> (with Michael Bayerlein, Bettina Rudloff & Pedro A. Villarreal Lizárraga).
- [Foresight: Multilevel Climate Policy in 2030](#), Working Paper No. 2, Stiftung Wissenschaft und Politik, August 2024 (with Ole Adolphsen, Oliver Geden, Jule Köneke, Felix Schenuit & Sonja Thielges).
- [Mögliche Zukünfte: CO₂-Transport- und Speicheranlagen im maritimen Raum](#), in: D. Voelsen (Ed.), Maritime kritische Infrastrukturen: Strategische Bedeutung und geeignete Schutzmaßnahmen, Stiftung Wissenschaft und Politik, Berlin 2024 (with Oliver Geden).
- [An earth system governance research agenda for carbon removal. Earth System Governance](#), 19, January 2024, <https://doi.org/10.1016/j.esg.2024.100204> (with Sean Low, Shinichiro Asayama, Chad Baum, Amanda Borth, Calum Brown, Forrest Clingerman, Peter Dauvergne, Kari De Pryck, Aarti Gupta, Matthias Honegger, Dominic Lenzi, Renate Reitsma, Felix Schenuit, Celina Scott-Buechler, Jose Maria Valenzuela).
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- [The living infinite: Envisioning futures for transformed human-nature relationships on the high seas](#), in: Marine Policy, 153, 2023, <https://doi.org/10.1016/j.marpol.2023.105644> (with Laura Pereira, Guillermo Ortuño Crespo, Diva J. Amon, Renuka Badhe, Salomão Bandeira, Frida Bengtsson, Gabrielle Carmine, William W. L. Cheung, Bwalya Chibwe, Daniel Dunn, Maria A. Gasalla, M. A., Ghassen Halouani, David E. Johnson, Jean-Baptiste Jouffray, Silvana Juri, Patrick W. Keys, Hannah M. Lübker, Andrew S. Merrie, Farah Obaidullah & Wei Zhou).
- [Specialty grand challenge: Renaming our section to 'Carbon Dioxide Removal'](#), in: Frontiers in Climate, 5, 2023, <https://doi.org/10.3389/fclim.2023.1279109> (with Phil Renforth, Rob Bellamy, David Beerling, Davide Bonalumi, Miguel Brandão, Mathias Fridahl, Sabine Fuss, Anders Hansson, Clare Heyward, Ben Kolosz, Patrick Lamers, Duncan McLaren, Raffaella Pomi, Daniel L. Sanchez, Soheil Shayegh, Volker Sick, Mijndert van der Spek, Vikram Vishal & Jennifer Wilcox).
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- [“Carbon Management”: Opportunities and risks for ambitious climate policy](#), SWP Comment 2023/C 29, 26.05.2023, doi:10.18449/2023C29 (with Felix Schenuit & Oliver Geden).
- [The formative phase of German carbon dioxide removal policy: Positioning between precaution, pragmatism and innovation](#), in: Energy Research & Social Science, April 2023, <https://doi.org/10.1016/j.erss.2023.103018> (with Felix Schenuit & Oliver Geden).
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- [Into the Blue: The Role of the Ocean in Climate Policy](#), SWP Comment 2023/C 12, 01.03.2023, doi:10.18449/2023C12 (with Felix Schenuit & Oliver Geden).
- [Carbon Dioxide Removal As an Integral Building Block of the European Green Deal](#), SWP Comment 2022/C 40, 16.06.2022, doi:10.18449/2022C40 (with Felix Schenuit & Oliver Geden).
- [Arguments and architectures: Discursive and institutional structures shaping global climate engineering governance](#), in: Environmental Science & Policy, Volume 128, February 2022, doi:10.1016/j.envsci.2021.11.015 (with Rakhyun E. Kim)
- [A Leap of Green Faith: the religious discourse of Socio-Ecological Care as an Earth system governmentality](#), in: Journal of Environmental Policy and Planning, July 2021, doi:10.1080/1523908X.2021.1956310.
- [Navigating potential hype and opportunity in governing marine carbon removal](#), in: Frontiers in Climate, June 2021, doi:10.3389/fclim.2021.664456 (with Kerryn Brent, Holly Jean Buck, Sean Low, Duncan McLaren und Nadine Mengis).

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- [Delaying decarbonization: Climate governmentalities and sociotechnical strategies from Copenhagen to Paris](#), in: *Earth System Governance*, 5, 2020 doi:10.1016/j.esg.2020.100073 (with Sean Low).
- [Cracking the code. How discursive structures shape climate engineering research governance](#), in: *Environmental Politics*, October 2019, doi:10.1080/09644016.2019.1670987.
- [Reflecting upon 10 Years of Geoengineering Research: Introduction to the Crutzen + 10 Special Issue](#), in: *Earth's Future*, 5(3), January 2017, 266-277. doi:10.1002/2016EF000521 (with Stefan Schäfer).
- [From 'go-slow' to 'gung-ho'? Comparing Climate Engineering discourses in the UK, the US and Germany](#), in: *Global Environmental Politics*, 15 (2), May 2015, doi:10.1162/GLEP_a_00298 (with Sebastian Harnisch, Stefanie Uther).

Sonderausgaben

- [Carbon dioxide removal: Perspectives from the social sciences and humanities](#) [Special section], in: *Frontiers in Climate* (Ed. with Hanssen, A., Fridahl & Asayama, S.).
- [Crutzen +10: Reflecting upon 10 years of geoengineering research \[Special Issue\]](#), in: *Earth's Future*, 4 (12), May 2016, doi:toc/10.1002/(ISSN)2328-4277.GEOENGIN1 (Ed. with Stefan Schäfer).

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Gutachten, Stellungnahmen & Berichte

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- Solar Radiation Management: Foresight for Governance. Project Report. - IASS Working Paper, April 2016, doi:10.2312/iass.2016.007 (with Johannes Gabriel & Sean Low).
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- [Governing Climate Engineering – A Transdisciplinary Summer School](#), in: Marsilius Kolleg, Ruprecht-Karls-Universität Heidelberg, September 2010 (with Sara Elisa Kettner).