

Sabine Fuss

Curriculum Vitae



© PIK/MCC

Employment History

Professor for “Nachhaltiges Ressourcenmanagement und Globaler Wandel”

Humboldt-Universität zu Berlin, Mathematisch-Naturwissenschaftliche Fakultät,
Geographisches Institut

July 2018 – current (2022/2023 maternity leave)

Head of Research Department

Potsdam Institute on Climate Impact Research e.v. (PIK), Potsdam
Climate Economics and Policy - MCC Berlin (RD5)

January 2025 – current

Head of working group "Sustainable Carbon Management"

Potsdam Institute on Climate Impact Research e.v. (PIK), Potsdam
Climate Economics and Policy - MCC Berlin (RD 5)

January 2025 – current

Co-chair Mercator Research Institute on Global Commons and Climate Change

Mercator Research Institute on Global Commons and Climate Change, Berlin

January – December 2024

Head of working group "Sustainable Resource Management & Global Change"

Mercator Research Institute on Global Commons and Climate Change, Berlin

April 2013 – December 2024 (2017/2018 and 2022/2023 maternity leave)

Jubilee Professor 2019

Chalmers University of Technology, Physical Resource Theory, Gothenburg,
Sweden.

2019

Education

Research Scholar at the Ecosystems Services and Management Program

International Institute for Applied Systems Analysis, Laxenburg, Austria

September 2007 – April 2013

Research Scholar at the Forestry Program

International Institute for Applied Systems Analysis, Laxenburg, Austria

November 2006 – December 2006

Junior Researcher (Assistant in Onderzoek) at the Economics Faculty

University of Maastricht, Maastricht, The Netherlands

September 2003 – September 2007

PhD Defense

University of Maastricht, Maastricht, The Netherlands

April 2008

Young Scientist Summer Program

International Institute for Applied Systems Analysis, Laxenburg, Austria

June – August 2006

Ph.D. candidate

Thesis topic: 'Sustainable Energy Development under Uncertainty'

University of Maastricht /UNU-MERIT, The Netherlands

September 2003 – September 2007

M.Sc. in Economics

Thesis topic: 'Technical Change in the Electricity Sector: Optimum Portfolios in a Vintage Framework'

University of Maastricht, The Netherlands

August 2003

Education Abroad Program

University of California, Santa Barbara

Fall/winter 2002

Doctoral Education

- 09/2003-09/2007 - NAKE diploma (Network of General and Quantitative Economics, see www.nake.nl)
- 08/2005 - METEOR (Maastricht Research School of Economics of Technology and Organizations) PhD training with macroeconomics, microeconomics and econometrics courses (special courses in Bayesian modeling, overlapping generations models, economic growth, environmental economics and evolutionary economics).

Abitur: 1999 (grade: "sehr gut")

Languages

- German (native)
- English (fluent)
- Dutch (good)
- French (good)
- Spanish (good)

Research Interests

- Carbon Dioxide Removal, geography of net-zero emissions strategies
- Natural resource management, energy and agricultural economics (bioenergy, land use implications, water-food-GHG nexus, policy assessment and tradeoffs)
- Decision-making under uncertainty: portfolio selection, real options theory, stochastic optimization, robustness.
- Integrated assessment with focus on climate change mitigation (focus on the role of negative emission and interaction with other policy goals)
- Reconciling top-down and bottom-up assessments
- Mechanisms for carbon management, climate-compatible development, policy instruments (focus on emissions trading)
- Sustainable development (e.g., infrastructure investments and food security)

Additional positions

- Member of the European Academy of Sciences (EURASC), Earth and Environmental Sciences Division
- Guest research scholar at the [Biodiversity and Natural Resources Program](#) at the [International Institute for Applied Systems Analysis](#).
- Contributing author for IPCC AR6 WG1, chapter 5.
- Contributing author for IPCC AR6 WG2, chapter 16.
- Scientific Steering Committee member of the [Global Carbon Project](#) (until 2020)
- Lead author for [IPCC Special Report on Impacts of Global Warming of 1.5°C above Pre-industrial Levels and related Global Greenhouse Gas Emission Pathways](#).
- Member of the working group on ecological questions, Deutsche Bischofskonferenz
- Editorial Board Member Environmental Research Communications (IOP)
- Associate Editor for Negative Emission Technologies at *Frontiers in Climate*
- Scientific Council Member of Carbon Management Chair at IFP School, Paris.
- Advisory Board C180
- Guest Editor for [Focus issue on tropical landscape restoration](#) at *Environmental Research Letters*
- [Austrian Panel on Climate Change](#)
- Contributing author for the [Emissions Gap Report 2017](#), UN Environment.
- Member of the UNOSD Expert Group on Achieving the SDGs with Water-Food-Ecosystem Resilience in the Mid-Latitude Region (since 2016).

Current PhD student supervision

- Since 2022 Ruben Prütz (HU Berlin)
- Since 2022 Maria Quirina Rodriguez Mendez (HU Berlin, MCC)
- Since 2023 Tabea Dorndorf (HU Berlin, Potsdam Institut für Klimafolgenforschung, Co-supervision)
- Since 2024 Jia Fanqi (HU Berlin, International Institute for Applied Systems Analysis, Co-supervision)

Recent teaching

- Since 2024 Stephanie La Hoyer-Toz (HU Berlin)
- Stadtwirtschaft, WiSe 2018/2019, 2019/2020, 2020/2021, 2021/2022, 2024/2025 HU-Berlin, Geographical Institute (Masters level)
- Wirtschaftsgeographie, Proseminar SoSe 2024
- Lecturer for the ENSYSTR 2019 PhD Student Workshop at Chalmers University, Gothenburg
- Urbanisierung und Nachhaltigkeit – die Stadt im Spannungsfeld des globalen Wandels, SoSe 2019, 2020 HU-Berlin, Geographical Institute (Masters level)
- Urban agriculture in Nairobi, Dar es Salaam and Berlin, SoSe 2021, SoSe 2022, HU Berlin, Geographical Institute (Masters level)
- Lecturer for the 18th Swiss Climate Summer School organized by Prof. Gruber et al.
- Lecturer for the EAERE Summer School 2021.
- Seminar leader at European Forum Alpbach: The “How” and “Who” of Europe’s Future of Energy, August 2021.
- Guest lectures (e.g. Stanford University 2021, ETH 2019, University Bern 2019, University Salzburg 2019, Universität Leoben 2022, etc.)

Reviewing (selected)

- Expert for H2020, Horizon Europe and ERC grants (proposals and projects)
- Reviewer for journals such as ERL, Climatic Change, Nature Climate Change, Nature Energy, Science, Energy Economics, Journal of Environmental Economics and Management, Renewable and Sustainable Energy Reviews, Energy Policy, Applied Energy, Climate Policy, Journal of Environmental Management
- Reviewer for national projects and evaluations (e.g. UKERC, EPA Ireland, Research Council Norway)
- Review Editor Austrian Panel on Climate Change (APCC) 2014
- [Reviewer for the Convention on Biological Diversity \(CBD\)](#)

Projects (ongoing)

- UPTAKE: Bridging current knowledge gaps to enable the UPTAKE of carbon dioxide removal methods (funding: Horizon Europe; partners: CMCC (lead), MCC, SWP, IIASA, PIK, Chalmers, PBL, E3M, Chalmers, UU, AU, IfW, UHAM, IKEM, REFORM, IOS, UB, ETH, PSI, USTARTH, UNIABDN) [until 2027]
- TRANSFORM: Research for evidence-based climate policy through agricultural and food systems transformation, financing preservation forest sink and a just transition of the economy (funding: BMZ; partners PIK RD2, RD5) [until 2027]]
- CDR SynTra (funding: German Ministry of Education and Research; partners: LMU (lead), MCC, SWP, IASS, GEOMAR, PIK, [until 2024])
- PROVIDE: Paris Agreement Overshooting Reversibility, Climate Impacts and Adaptation Needs (funding: H2020, grant agreement no. 101003687, partners: HU (lead), Climate Analytics, CERFACS, ETH, ICL, CEA-LSCE, UBC, NRI, UEA, UIBK, UBERN, WCS, CICERO), [until 2024]
- GENIE: GeoEngineering and Negative Emissions Pathways in Europe (funding: ERC, grant agreement No 951542; partners: Univ. Aarhus, IIASA, Univ. Wisconsin; personal role: Task lead), [until 2025]

Publications

Prütz, R., Fuss, S., and Rogelj, J. (2024). Imputation of missing IPCC AR6 data on land carbon sequestration, *Earth System Science Data* [accepted].

Schleussner, C.F., Ganti, G., Lejeune, Q. Zhu, B., Pfeleiderer, P., Prütz, R., Ciais, P., Frölicher, T.L., Fuss, S. *et al.* (2024). Overconfidence in climate

overshoot. *Nature* **634**, 366–373. <https://doi.org/10.1038/s41586-024-08020-9>.

Rodriguez Mendez, Q., Fuss, S., Lück, S., Creutzig, F. (2024). Assessing global urban CO₂ removal. *Nature Cities* 1, 413–423. <https://doi.org/10.1038/s44284-024-00069-x>

Schulte, I., Yowargana, P., Nielsen, J.Ø., Kraxner, F., Fuss, S. (2024). Towards integration? Considering social aspects with large-scale computational models for nature-based solutions. *Global Sustainability*, 7:e4. doi:10.1017/sus.2023.26

Prütz, R., Fuss, S., Lück, S. et al. (2024). A taxonomy to map evidence on the co-benefits, challenges, and limits of carbon dioxide removal. *Communications Earth and Environment* 5, 197. <https://doi.org/10.1038/s43247-024-01365-z>

Bustamante, M., Roy, J., Ospina, D., Achakulwisut, P., Aggarwal, A., Bastos, A., Broadgate, W., Canadell, J.G., Carr, E.R., Chen, D., Cleugh, H.A., Ebi, K.L., Edwards, C., Farbotko, C., Fernández-Martínez, M., Frölicher, T.L., Fuss, S., et al. (2023). Ten new insights in climate science 2023. *Global Sustainability*. 7:e19. doi:10.1017/sus.2023.25

Zickfeld, K., Maclsaac, A.J., Canadell, J.G., Fuss, S. et al. Net-zero approaches must consider Earth system impacts to achieve climate goals. *Nat. Clim. Chang.* **13**, 1298–1305 (2023). <https://doi.org/10.1038/s41558-023-01862-7>

Yang, J., Fuss, S., Johansson, D.J.A., Azar, C.A. (2023). Investment Dynamics in the Energy Sector under Carbon Price Uncertainty and Risk Aversion. *Energy and Climate Change* 4:100110

Prütz, R., Strefler, J., Rogelj, J., Fuss, S. (2023). Understanding the carbon dioxide removal range in 1.5 °C compatible and high overshoot pathways. *Environmental Research Communications* 5(4):1-10.

Renforth, P., Bellamy, R., Beerling, D., Boettcher, M., Bonalumi, D., Brandão, M., Fridahl, M., Fuss, S., Hansson, A., Heyward, C., Kolosz, B., Lamers, P., McLaren, D., Pomi, R., Sanchez, D.L., Shayegh, S., Sick, V., Van der Spek, M., Vishal, V. and Wilcox, J. (2023) Specialty grand challenge: renaming our section to “Carbon Dioxide Removal”. *Front. Clim.* 5:1279109. doi: 10.3389/fclim.2023.1279109

Yuwono, B., Yowargana, P., Griscom, B., Smith, P., Fuss, S., Kraxner, F. (2022). Doing burden-sharing right to deliver natural climate solutions for carbon dioxide removal. *Nature-Based Solutions* 3:100048.

Martin, M.A. et al. (2022). Ten new insights in climate science 2022. *Global Sustainability* 5, e20.

Dockendorff, C., Fuss, S., Agra, R., Guye, V., Herrera, D., Kraxner, F. (2022). Committed to restoring tropical forests: an overview of Brazil's and Indonesia's restoration targets and policies. *Environmental Research Letters* 17(093002). doi: 10.1088/1748-9326/ac8ab2.

Gruner, F., Fuss, S., Kalkuhl, M., Minx, J., Strefler, J., Merfort, A. (2022). Wie CO₂-Entnahmen helfen können, die Klimaziele zu erreichen. *Klima und Recht* 1/2022, S. 18-21.

Schulte, I., Eggers, J., Østergaard Nielsen, J., Fuss, S. (2021). What influences the implementation of natural climate solutions? A systematic map and review of the evidence. *Environmental Research Letters*. doi: 10.1088/1748-9326/ac4071.

Fuss, S. & Johnsson, F. (2021). The BECCS Implementation Gap—A Swedish

- Fuss, S., Golub, A., & Lubowski, R. (2021). The economic value of tropical forests in meeting global climate stabilization goals. *Global Sustainability*, 4, E1. doi:10.1017/sus.2020.34
- Jackson, R.B., Abernethy, S., Canadell, J.G., Cargnello, M., Davis, S.J., Féron, S., Fuss, S., Heyer, A.J., Hong, C., Jones, C.D., Damon, Matthews, H., O'Connor, F.M., Pisciotta, M., Rhoda, H.M., de Richter, R., Solomon, E.I., Wilcox, J.L., Zickfeld, K. (2021). Atmospheric methane removal: a research agenda. *Phil. Trans. R. Soc. A*.3792020045420200454, <http://doi.org/10.1098/rsta.2020.0454>.
- Kraus, S., Liu, J., Koch, N., Fuss, S. (2021). No aggregate deforestation reductions from rollout of community land titles in Indonesia yet. *Proceedings of the National Academy of Sciences* 118(43):e2100741118; <http://doi.org/10.1073/pnas.2100741118>.
- Martin, M., Sendra, O., Bastos, A., Bauer, N., Bertram, C., Blenckner, T., Fuss, S., ... Woodcock, J. (2021). Ten new insights in climate science 2021: A horizon scan. *Global Sustainability* 4:E25. <http://doi:10.1017/sus.2021.25>.
- Andrijevic, M., Byers, E., Mastrucci, A., Smits, J., Fuss, S. (2021). Future cooling gap in shared socioeconomic pathways. *Environ. Res. Lett.* 16:094053.
- Fuss, S., Canadell, J.G., Ciais, P., Jackson, R.B., Jones, C.D., Lyngfelt, A., Peters, G.P., van Vuuren, D.P. (2020). Moving toward Net-Zero Emissions Requires New Alliances for Carbon Dioxide Removal. *One Earth* 3(2):145-149.
- Ley, D., Corsair, H.J., Fuss, S., Singh, C. (2020). Evaluating the use of renewable energy and communal governance systems for climate change adaptation, *Central European Review of Economics and Management* 4(1):53-69.
- Hepburn, C., Adlen, E., Beddington, J., Carter, E.A., Fuss, S., MacDowell, N., Minx, J.C., Smith, P. and Williams, C.K. (2019). The technological and economic prospects for CO2 utilization and removal, *Nature* 575 87–97 Online: <https://doi.org/10.1038/s41586-019-1681-6>
- Smith, P., Adams, J., Beerling, D.J., Beringer, T., Calvin, K.V., Fuss, S., Griscom, B., Hagemann, N., Kammann, C., Kraxner, F., Minx, J.C., Popp, A., Renforth, P., Vicente-Vicente, J.L. and Keesstra, S. (2019). Land-Management Options for Greenhouse Gas Removal and Their Impacts on Ecosystem Services and the Sustainable Development Goals. *Annu. Rev. Environ. Resour.* 44 255–86 Online: <https://doi.org/10.1146/annurev-environ-101718-033129>
- Vicente-Vicente, J.L.; Fuss, S.; Song, C.; Lee, J.; Kim, M.; Lee, W.-K.; Son, Y. (2019). A Holistic View of Soils in Delivering Ecosystem Services in Forests: A Case Study in South Korea. *Forests* 10, 487.
- Creutzig, F., Bren d'Amour, C., Weddige, U., Fuss, S., Beringer, T., Gläser, A., . . . Edenhofer, O. (2019). Assessing human and environmental pressures of global land-use change 2000–2010. *Global Sustainability* 2, E1. doi:10.1017/sus.2018.15
- Patrizio, P., Leduc, S., Kraxner, F., Fuss, S., Kindermann, G., Mesfun, S., Spokas, K., Mendoza, A., MacDowell, N., Wetterlund, E., Lundgren, J., Dotzauer, E., Yowargana, P. and Obersteiner, M. (2018). Reducing US coal emissions can boost employment. *Joule* 2: 1-16 Online: <https://doi.org/10.1016/j.joule.2018.10.004>
- Fuss, S., Flachsland, C., Koch, N., Kornek, U., Knopf, B., Edenhofer, O. (2018). An assessment framework for intertemporal economic performance of cap-and-trade systems: lessons from the EU-ETS, *Review of Environmental*

- Minx, J.C. et al. (2018). Negative emissions: Part 1 – research landscape and synthesis. *Environmental Research Letters* 13 063001.
- Fuss, S. et al. (2018): Negative emissions - Part 2: Costs, potentials and side effects. *Environmental Research Letters* 13 063002.
- Nemet, G.F. et al. (2018). Negative emissions -Part 3: Innovation and upscaling. *Environmental Research Letters* 13 063003.
- Bui, M.; Adjiman, C.S.; Bardow, A.; Anthony, E.J.; Boston, A.; Brown, S.; Fennel, P.S.; Fuss, S.; ... Dowell, N.M. (2018). Carbon capture and storage (CCS): the way forward. *Energy & Environmental Science*, DOI: 10.1039/C7EE02342A.
- Golub, A.A., Fuss, S.; Lubowski, R.; Hiller, J.; Khabarov, N.; Koch, N.; ... Wehkamp, J. (2018). Escaping the climate policy uncertainty trap: options contracts for REDD+, *Climate Policy*, DOI: 10.1080/14693062.2017.1422478.
- Wehkamp, J.; Pietsch, S.A.; Fuss, S.; Gusti, M.; Reuter, W.H.; Koch, N.; Kindermann, G.; Kraxner, F. (2018). Accounting for institutional quality in global forest modeling. *Environmental Modelling & Software* 102:250-259.
- Jackson, R.B., Canadell, J.G., Fuss, S., Milne, J.L., Nakicenovic, N., Tavoni, M. (2017). Focus on negative emissions. *Environmental Research Letters* 12(11):110201; DOI10.1088/1748-9326/aa94ff
- Koch, N., Reuter, W., Fuss, S., Grosjean, G. (2017): Permits vs. offsets under investment uncertainty, *Resource and Energy Economics*, 49, 33-47.
- Kraxner, F., Schepaschenko, D., Fuss, S., Lunnan, A., Kindermann, G., Aoki, K., Dürauer, M., Shvidenko, A. See, L. (2017). Mapping certified forests for sustainable management - A global tool for information improvement through participatory and collaborative mapping. *Forest Policy and Economics* 83:10–18, doi:10.1016/j.forpol.2017.04.014.
- Wehkamp, J., Koch, N., Lübbers, S., Fuss, S., (2017). Governance and deforestation - A meta-analysis in economics, *Ecological Economics*, 144, 214-227.
- Fuss, S. (2017). *The 1.5°C Target, Political Implications, and the Role of BECCS*. Oxford University Press, <http://climatescience.oxfordre.com/view/10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-585> (Accessed September 4, 2017).
- Peters, G.P., Andrew, R.M., Canadell, J.G., Fuss, S., Jackson, R.B., Korsbakken, J.I., Le Quéré, C., Nakicenovic, N. (2017): Key indicators to track current progress and future ambition of the Paris Agreement. *Nature Climate Change* 7:118–122.
- Knopf, B., Fuss, S., Hansen, G., Creutzig, F., Minx, J., Edenhofer, O. (2017). From Targets to Action: Rolling up our Sleeves after Paris. *Global Challenges* 1(2), <https://doi.org/10.1002/gch2.201600007>.
- Minx, J., Lamb, W.F., Callaghan, M.W., Bornmann, L., Fuss, S. (2017). Fast growing research on negative emissions. *Environmental Research Letters* at press: <https://doi.org/10.1088/1748-9326/aa5ee5>.
- Fuss, S., Jones, C., Kraxner, F., Peters, G., Smith, P., Tavoni, M., Van Vuuren, D., Canadell, J.G., Jackson, R., Milne, J., Moreira, J., Nakicenovic, N., Sharifi, A., Yamagata, Y. (2016). Research priorities for negative emissions. *Environmental Research Letters* 11(11).
- Grosjean, G., Fuss, S., Koch, N., Acworth, W., De Cara, S. (2016). Options to overcome the barriers to pricing European agricultural emissions. *Climate Policy* <http://dx.doi.org/10.1080/14693062.2016.1258630>.
- Szolgayová, J., Fuss, S., Kaminski, T., Scholze, M., Gusti, M., Heimann, M., Tavoni, M. (2016). The benefits of investing into improved carbon flux monitoring. *Cogent Economics & Finance* 4: 1239672 <http://dx.doi.org/10.1080/23322039.2016.1239672>
- Tietjen, O., Pahle, M., Fuss, S. (2016). Investment risks in power generation: A

- comparison of fossil fuel and renewable energy dominated markets. *Energy Economics* 58: 174–185.
- Schueler, V., Fuss, S., Steckel, J.C., Weddige, U., Beringer, T. (2016). Productivity ranges of sustainable biomass potentials from non-agricultural land. *Environmental Research Letters* 11:074026.
- Fuss, S., Chen, C., Jakob, M., Marxen, A., Rao, N.D., Edenhofer, O. (2016). Could resource rents finance universal access to infrastructure? A first exploration of needs and rents. *Environment and Development Economics* 21(6): 691-712.
- Koch, N., Grosjean, G., Fuss, S., Edenhofer, O. (2016). Politics matters: Regulatory events as catalysts for price formation under cap-and-trade. *Journal of Environmental Economics and Management* 8: 121–139.
- Jakob, M., Chen, C., Fuss, S., Marxen, A., Rao, N.D., Edenhofer, O. (2016). Carbon Pricing Revenues Could Close Infrastructure Access Gaps. *World Development* 84: 254–265.
- Fuss, S. (2016). Climate economics: Substantial risk for financial assets. *Nature Climate Change*, DOI: 10.1038/nclimate2989.
- Smith, P., Davis, S., Creutzig, F., Fuss, S. et al. (2016). Biophysical and economic limits to negative CO₂ emissions. *Nature Climate Change* doi:10.1038/nclimate2870.
- Moreira, J.R.; Romeiro, V.; Fuss, S.; Kraxner, F.; Pacca, S.A. (2016). BECCS potential in Brazil: Achieving negative emissions in ethanol and electricity production based on sugar cane bagasse and other residues. *Applied Energy* 179: 55–63.
- Jakob, M., Chen, C., Fuss, S., Marxen, A., Edenhofer, O. (2015). Development incentives for fossil fuel subsidy reform. *Nature Climate Change* 5: 709–712.
- Wehkamp, J., Aquino, A., Fuss, S., Reed, E.W. (2015). Analyzing the perception of deforestation drivers by African policy makers in the perspective of possible REDD+ policy responses. *Forest Policy and Economics* 59: 7–18.
- Fuss, S., Havlík, P., Szolgayová, J., Schmid, E., Reuter, W.-H., Khabarov, N., Obersteiner, M., Ermoliev, Y., Ermolieva, T., Kraxner, F. (2015). Global food security & adaptation under crop yield volatility. *Technological Forecasting and Social Change* 98: 223–233.
- Jäger, J., Nakicenovic, N., Fuss, S., KC, S. Rovenskaya E., Wagner, F. (2015). Special Issue based on IIASA's 40th Anniversary Conference Guest Editorial. *Technological Forecasting and Social Change* 98: 211-212.
- Edenhofer, O., Jakob, M., Creutzig, F., Flachsland, C., Fuss, S., Kowarsch, M., Lessmann, K., Mattauch, L., Siegmeier, J., Steckel, J.C. (2015). Closing the emissions price gap. *Global Environmental Change* 31: 132–143.
- Fuss, S., Canadell, J.G., Peters, G.P., Tavoni, M., Andrew, R.M., Ciais, P., Jackson, R.B., Jones, C.D., Kraxner, F., Nakicenovic, N., Le Quéré, C., Raupach, M.R., Sharifi, A., Smith, P., Yamagata, Y. (2014). Betting on Negative Emissions. *Nature Climate Change* 850–853 (2014) doi:10.1038/nclimate2392.
- Leclère, D., Havlík, P., Fuss, S., Schmid, E., Mosnier, A., Walsh, B., Valin, H., Hererro, M., Khabarov, N., Obersteiner, M. (2014). Climate change induced transformations of agricultural systems: insights from a global model. *Environmental Research Letters* 12/2014; 9(12). DOI:10.1088/1748-9326/9/12/124018
- Gschwind, B., Lefevre, M., Blanc, I., Ranchin, T., Wyrwa, A., Drebszok, K., Cofala, J., Fuss, S. (2014). Including the temporal change in PM_{2.5} concentration in the assessment of human health impact: Illustration with renewable energy scenarios to 2050. *Environmental Impact Assessment Review* 52: 62–68.
- Koch, N.T., Fuss, S., Grosjean, G., Edenhofer, O. (2014). Causes of the EU ETS price drop: Recession, CDM, renewable policies or a bit of everything?—New

- evidence. *Energy Policy* 73: 676–685.
- Szolgayová, J., Golub, A., Fuss, S. (2014). Innovation & risk-averse firms: options on carbon allowances as a hedging tool. *Energy Policy* 70: 227-235.
- Havlík, P., Valin, H., Herrero, M., Obersteiner, M., Schmid, E., Rufino, M.C., Mosnier, A., Thornton, P.K., Bottcher, H., Conant, R.T., Frank, S., Fritz, S., Fuss, S., Kraxner, F., Notenbaert, A. (2014). Climate change mitigation through livestock system transitions. *PNAS* 111(10):3709-3714.
- Kraxner, F., Leduc, S., Fuss, S., Aoki, K., Kindermann, G., Yamagata, Y. (2014). Energy resilient solutions for Japan-a BECCS case study. *Energy Procedia* 61: 2791-2796.
- Andersson, A.M., Elverhøi, M., Fleten, S.E., Fuss, S., Szolgayová, J., Troland, O.C. (2014). Upgrading hydropower plants with storage: timing and capacity choice. *Energy Systems* 5(2): 233-252.
- Kraxner, F., Aoki, K., Leduc, S., Kindermann, G., Fuss, S., Yang, J., Yamagata, Y., Tak, K., Obersteiner, M. (2014). BECCS in South Korea - Analyzing the negative emissions potential of bioenergy as a mitigation tool, *Renewable Energy* 61:102-108.
- Swart, R., Fuss, S., Obersteiner, M., Ruti, P., Teichmann, C., Vautard, R. (2013). Beyond vulnerability assessment. *Nature Climate Change* 3:942–943.
- Sanders, M., Fuss, S., Engelen, P.J. (2013). Mobilizing private funds for carbon capture and storage: An exploratory field study in the Netherlands. *International Journal of Greenhouse Gas Control* 19: 595–605.
- Kraxner, F., Nordström, E., Havlík, P., Gusti, M., Mosnier, A., Frank, S., Valin, H., Fritz, S., Fuss, S., Kindermann, G., McCallum, I., Khabarov, N., Böttcher, H., See, L., Aoki, K., Schmid, E., Máthe, L., Obersteiner, M. (2013). Global bioenergy scenarios - Future forest development, land-use implications, and trade-offs. *Biomass and Bioenergy* 57: 86–96.
- Svadlenak-Gomez, K., Walzer, C., Badura, M., Kraxner, F., Fuss, S. (2013). Valuing Alpine ecosystems: the recharge.green project will help decision-makers to reconcile renewable energy production and biodiversity conservation in the Alps; *Journal on Protected Mountain Areas Research* 05/2013; DOI:10.1553/ecomont-5-1s59.
- Fuss, S., Reuter, W.H., Szolgayová, J., Obersteiner, M. (2013). Optimal mitigation strategies with negative emission technologies and carbon sinks under uncertainty, *Climatic Change* 118(1): 73-87.
- Heumesser, C., Fuss, S., Szolgayová, J., Strauss, F., Schmid, E. (2012). Investment in irrigation systems under precipitation uncertainty, *Water Resources Management*, 26(11):3113-3137.
- Seebach, L., McCallum, I., Fritz, S., Kindermann, G., Leduc, S., Bottcher, H., Fuss, S. (2012). Choice of forest map has implications for policy analysis: A case study on the EU biofuel target, *Environmental Science & Policy* 22:13-24.
- Lemoine, D.M., Fuss, S., Szolgayová, J., Obersteiner, M., Kammen, D.M. (2012). The influence of negative emission technologies and technology policies on the optimal climate mitigation portfolio, *Climatic Change*, 113(2):141-162.
- Reuter, W.H., Szolgayová, J., Fuss, S., Obersteiner, M. (2012). Renewable energy investment: Policy and market impacts, *Applied Energy* 97:249-254.
- Reuter, W.H., Fuss, S., Szolgayová, J., Obersteiner, M. (2012). Investment in wind power and pumped storage in a real options model, *Renewable and Sustainable Energy Reviews* 16(4):2242-2248.
- Szolgayová J, Fuss S, Khabarov N, Obersteiner M (2012). Robust energy portfolios under climate policy and socioeconomic uncertainty, *Environmental Modeling and Assessment* 17(1-2):39-49.
- Fuss, S., Szolgayová, J., Khabarov, N., Obersteiner, M. (2012). Renewables and climate change mitigation: Irreversible energy investment under uncertainty and portfolio effects *Energy Policy*, 40:59-68.

- Strauss, F., Heumesser, C., Fuss, S., Szolgayová, J., Schmid, E. (2011). Optimal irrigation management strategies under weather uncertainty and risk, *Journal of the Austrian Society of Agricultural Economics* 20(2):45-54.
- Szolgayová, J., Fuss, S., Khabarov, N., Obersteiner, M. (2011). A dynamic CVaR-portfolio approach using real options: An application to energy investments, *European Transactions on Electrical Power* 21(6):1825-1841.
- Fuss, S., Szolgayová, J., Golub, A., Obersteiner, M. (2011). Options on low-cost abatement and investment in the energy sector: New perspectives on REDD, *Environment and Development Economics* 16(4):507-525.
- Fuss, S., Szolgayová, J. (2010). Fuel price and technological uncertainty in a real options model for electricity planning, *Applied Energy* 87(9):2938-2944.
- Zhou, W., Zhu, B., Fuss, S., Szolgayová, J., Obersteiner, M., Fei, W. (2010). Uncertainty modeling of CCS investment strategy in China's power sector, *Applied Energy* 87(7):2392-2400.
- McCallum, I., Fritz, S., Khabarov, N., Fuss, S., Szolgayová, J., Ryzak, F., Havlík, P., Kraxner, F., Obersteiner, M., Aoki, K. (2010). Identifying and quantifying the benefits Of GEOSS, *Earthzine*, posted on 12 July 2010 in Articles, Earth Observation, Economy, GEOSS/ICEO News.
- Fuss, S., Johansson, D.J.A., Szolgayová, J., Obersteiner, M. (2009). Impact of climate policy uncertainty on the adoption of electricity generating technologies, *Energy Policy* 37(2):733-743.
- Fuss, S., Szolgayová, J., Obersteiner, M. (2008). A real options approach to satellite mission planning, *Space Policy* 24(4):199-207.
- Szolgayová, J., Fuss, S., Obersteiner, M. (2008). Assessing the effects of CO2 price caps on electricity investments - A real options analysis, *Energy Policy* 36(10):3974-3981.
- Fortin, I., Fuss, S., Hlousková, J., Khabarov, N., Obersteiner, M., Szolgayová, J. (2008). An integrated CVaR and real options approach to investments in the energy sector, *The Journal of Energy Markets* 1(2):61-85.
- Fuss, S., Szolgayová, J., Obersteiner, M., Gusti, M. (2008). Investment under market and climate policy uncertainty, *Applied Energy* 85(8):708-721.

Book chapters

- Fuss, S., Johnstone, I., Höglund, R., Walsh, N. (2024). Chapter 4: The voluntary carbon market. in *The State of Carbon Dioxide Removal 2024 – 2nd Edition* (eds. Smith, S. M. et al.). <https://www.stateofcdr.org>, doi:10.17605/OSF.IO/MG3CY.
- Fuss, S. (2022). Comparison of Technologies and Practices for Removing Carbon Dioxide from the Atmosphere. In: *Greenhouse Gas Removal Technologies*, eds. M. Bui, N. MacDowell, in Energy and Environment Series No. 31, The Royal Society of Chemistry, London: 351-377.
- Fuss, S. (2019). Implications of deep decarbonization pathways for sustainable development, In: *What Next for Sustainable Development? Our Common Future at Thirty*, eds. G Meadowcroft, J., Banister, D., Holden, E., Langhelle, O., Linnerud, K., Gilpin, Edward Elgar Publishing: 76–95.
- Patrizio, P., Leduc, S., Kraxner, F., Fuss, S., Kindermann, G., Spokas, K., Wetterlund, E., Lundgren, J., Yowargana, P. and Obersteiner, M. (2019) Chapter 11 - Killing two birds with one stone: a negative emissions strategy for a soft landing of the US coal sector. In: J.C. Magalhães Pires et al. (eds.) (Academic Press) pp 219–36. Online: <http://www.sciencedirect.com/science/article/pii/B9780128162293000119>
- Kraxner, F., Fuss, S., Verkerk, H. (2017). Is there enough forest biomass available to meet the demands of the forest-based bioeconomy? In book: *Towards a sustainable European forest-based bioeconomy – assessment and the way forward*, Chapter: 3.1, Publisher: European Forest Institute, Editors:

Winkel G., pp.53-66.

- Obersteiner, M., Balkovič, J., Böttcher, H., Bouma, J.A., Fritz, S., Fuss, S., Havlik, P., Heumesser, C., Hochrainer-Stigler, S., Jantke, K., Khabarov, N., Koch, B., Kraxner, F., Kuik, O., Leduc, S., Liu, J. Lucht, W., MacCallum, I., Mechler, R., Moltchanova, E., Reyers, B., Rydzak, F., Schill, C., Schleupner, C., Schmid, E., Schneider, U.A., Scholes, R.J., See, L.M., Skalsky, R., Smirnov, A., Szolgayova, J., Tarasovicova, Z., Yang, H. (2017). The Value of Global Earth Observations. In book: *Satellite Earth Observations and Their Impact on Society and Policy*, pp.137-142; DOI10.1007/978-981-10-3713-9_12.
- Kraxner, F.; Leduc, S.; Serrano Leon, H.; Fuss, S.; Patrizio, P.; Yowargana, P. (2016). Expanding renewable energy within the Alpine ecological network. In: Plassmann et al. (Eds.), [Alpine Nature 2030 - Creating \[ecological\] connectivity for generations to come](#) (book). Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB).
- Kraxner, F., Fuss, S., Krey, V., Best, D., Leduc, S., Kindermann, G., Yamagata, Y., Schepaschenko, D., Shvidenko, A., Aoki, K., Yan, J. The role of bioenergy with carbon capture and storage (BECCS) for climate policy. V. 3. P. 1466-1483. In: Yan J (Ed) 2015, *The Handbook of Clean Energy Systems*. John Wiley & Sons, Ltd.
- Schepaschenko, D., Kraxner, F., See, L., Fuss, S., McCallum, I., Fritz, S., Perger, C., Shvidenko, A., Kindermann, G., Frank, S., Tum, M., Schmid, E., Balkovic, J., Günther, K. Global biomass information: from data generation to application. Vol. 1. Pp. 11-33. In: Yan J (Ed) 2015, *The Handbook of Clean Energy Systems*. John Wiley & Sons, Ltd.
- See, L., Kraxner, F., Fuss, S., Perger, C., Schill, C., Aoki, K., Leduc, S., McCallum, I., Forsell, N., Fritz, S. The potential of crowdsourcing for the renewable energy sector. V.1. P. 721-735. In: Yan J (Ed) 2015, *The Handbook of Clean Energy Systems*. John Wiley & Sons, Ltd.
- Grubler, A. and Fuss, S. (2013). Technology portfolios: modeling technological uncertainty and innovation risks. Chapter 7 (pp. 89-102) In: Grubler, A. and C. Wilson (eds), *Energy Technology Innovation: Learning from Historical Successes and Failures*, Cambridge University Press.
- Fritz, S., Fuss, S., Havlík, P., Szolgayová, J., McCallum, I., Obersteiner, M., See, L. (2012). The value of determining global land cover for assessing climate change mitigation options, In: *The Value of Information: Methodological Frontiers and New Applications in Environment and Health*, R Laxminarayan, MK Macauley (eds) Springer, Dordrecht, Netherlands pp.193-230.
- Kuik, O. and Fuss, S. (2011). Renewables in the energy market: A financial-technological analysis considering risk and policy options, In: *Financial Aspects in Energy: A European Perspective*, A Dorsman, W Westerman, MB Karan, O Arslan (eds) Springer, Heidelberg, Germany pp.33-50.
- Fuss, S. (2010). Forestry carbon sequestration: Alternative perspective, In: *Smart Solutions to Climate Change: Comparing Costs and Benefits*, B. Lomborg (ed.) Cambridge University Press, Cambridge, UK pp.133-141.
- Ortiz-Moctezuma, M.B., Pivovarchuk, D., Szolgayová, J., Fuss, S. (2010). Development of transportation infrastructure in the context of economic growth, In: *Dynamic Systems, Economic Growth, and the Environment*, J. Crespo Cuaresma, T. Palokangas, A. Tarasyev (eds) Springer-Verlag, Heidelberg, Germany pp. 259-289.
- Fuss, S., Khabarov, N., Szolgayová, J., Obersteiner, M. (2009). The effects of climate policy on the energy technology mix: An integrated CVaR and Real Options Approach. In: *Modeling Environment - Improving Technological Innovations under Uncertainty*, A. Golub and A. Markandya (eds) Routledge, London, UK.
- van Zon, A. and Fuss, S. (2008). Risk, embodied technical change and irreversible investment decisions in UK electricity production: An optimum technology portfolio approach, In: *Analytical Methods for Energy Diversity and*

Security, M. Bazilian, F. Roques (eds) Elsevier BV, Amsterdam, Netherlands pp.275-302.

Reports, Preprints and Working Papers

- Schaeffer, R., Schipper, ELF., Ospina, D., Mirazo, P., Alencar, A., Anvari, M., Artaxo, P., Biresselioglu, M.E., Blome, T., Boeckmann, M., Brink, E., Broadgate, W., Bustamante, M., Cai, W., Canadell, J.G., Cardinale, R., Chidichimo, M.P., Ditlevsen, P., Eicker U., Feron, S., Fikru, M.G., Fuss, S. et al. (2024). Ten New Insights in Climate Science 2024; <https://doi.org/10.31219/osf.io/2ts8p>
- Prütz, R., Fuss, S., and Rogelj, J.: Imputation of missing IPCC AR6 data on land carbon sequestration, *Earth Syst. Sci. Data Discuss.* [preprint], <https://doi.org/10.5194/essd-2024-68>, in review, 2024.
- Sarah Lück, Max Callaghan, Malgorzata Borchers et al. Scientific literature on carbon dioxide removal much larger than previously suggested: insights from an AI-enhanced systematic map, 17 March 2024, PREPRINT (Version 1) available at *Research Square* [<https://doi.org/10.21203/rs.3.rs-4109712/v1>]
- Rodriguez Mendez, Q., Creutzig, F., Fuss, S., Lück, S. (2023). Towards carbon-neutral cities: an assessment of urban CO₂ removal and albedo management. Preprint, <https://doi.org/10.21203/rs.3.rs-3189692/v1>
- Smith S. M., Geden O., Nemet G., Gidden M., Lamb W. F., Powis C., et al. (2023). *The State of Carbon Dioxide Removal– 1st Edition*.
- Ragwitz M./ Weidlich, A. et al.: Szenarien für ein klimaneutrales Deutschland. Technologieumbau, Verbrauchsreduktion und Kohlenstoffmanagement (Schriftenreihe Energiesysteme der Zukunft), München 2023. DOI: 10.48669/esys_2023-3
- Fuss, S., Gruner, F., Hilaire, J., Kalkuhl, M., Knapp, J., Lamb, W., Merfort, A., Meyer, H., Minx, J., Strefler, J. (2022). CO₂-Entnahmen: Notwendigkeit und Regulierungsoptionen. Studie im Auftrag der Wissenschaftsplattform Klimaschutz, available at https://www.wissenschaftsplattform-klimaschutz.de/files/WPKS_Gutachten_MCC_PIK.pdf.
- Hourcade, J.C. et. Al. (2021). Scaling up climate finance in the context of Covid-19. (South Korea: Green Climate Fund), available at <https://www.greenclimate.fund/document/scaling-up-climate-finance>.
- Edenhofer, O., Eggers, J., Fuss, S., Kalkuhl, M., Merfort, A., Minx, J.C., Strefler, J. (2021). Wissensstand zu CO₂-Entnahmen - Bedarf & Potenziale, Technologien & Politikinstrumente, weltweit & in Deutschland. MCC Working Paper, available at https://www.mcc-berlin.net/fileadmin/data/C18_MCC_Publications/2021_MCC_Wissensstand_zu_CO2-Emissionen.pdf.
- Luderer, G., Kost, C., Sörgel, D. (Eds.) (2021): Deutschland auf dem Weg zur Klimaneutralität 2045 - Szenarien und Pfade im Modellvergleich, (Ariadne-Report), Potsdam: Potsdam Institute for Climate Impact Research, 359 p. <https://doi.org/10.48485/pik.2021.006>.
- Edenhofer, O., Eggers, J., Fuss, S., Kalkuhl, M., Merfort, Minx, J.C., Strefler, J. (2021). Wissensstand zu CO₂-Entnahmen: Bedarf & Potenziale, Technologien & Politikinstrumente - Weltweit & in Deutschland. [MCC Arbeitspapier](#).
- The Royal Society (2021). Climate change and land: the science of working with nature towards net zero. *Climate Change: Science and Solutions* | [Briefing 9](#).
- Tavoni, M., Bosetti, V., Shayegh, S., Drouet, L., Emmerling, J., Fuss, S., Goeschl, T., Guivarch, C., Lontzek, T., Manoussi, V., Cruz, J.-M., Muri, H., Quaas, M., Rickels, W. (2017). Challenges and Opportunities for Integrated Modeling of Climate Engineering. January 2017, *SSRN Electronic Journal*, DOI10.2139/ssrn.3035166.
- Acworth, W., Ackva, J., Burtraw, D., Edenhofer, O., Fuss, S., Flachsland, C., Haug, C., Koch, N., Kornek, U., Knopf, B., Montes De Oca, M. (2017). [Emissions trading and the role of a long-run carbon price signal: Achieving](#)

- [cost-effective emission reductions under an emissions trading system](#), ICAP, Berlin.
- Godefroy, G., Fuss, S., Koch, N., Acworth, W., De Cara, S. (2016). Agriculture: sleeping beauty of EU climate policy? Overcoming barriers to implementation, DOI: 10.13140/RG.2.1.1482.9841.
- Koch, N., Reuter, W.H., Fuss, S., Grosjean, G. (2016). Permits vs. Offsets Under Investment Uncertainty (January 5, 2016). Available at SSRN: <http://ssrn.com/abstract=2711321> or <http://dx.doi.org/10.2139/ssrn.2711321>
- Jakob, M., Chen, C., Fuss, S., Marxen, A., Rao, N., Edenhofer, O. (2015). Using Carbon Pricing Revenues to Finance Infrastructure Access. *FEEM Nota di Lavoro* #94. Available at: <http://www.feem.it/userfiles/attach/201511241149154NDL2015-094.pdf>
- Fuss, S., Chen, C., Jakob, M., Marxen, A., Edenhofer, O. (2015). Could Resource Rents Finance Universal Access to Infrastructure? A first exploration of needs and rents, *FEEM Nota di Lavoro* #83. Available at: <http://www.feem.it/userfiles/attach/201511231216534NDL2015-093.pdf>
- Koch, N., Grosjean, G., Fuss, S., Edenhofer, O. (2015). Politics Matters: Regulatory Events as Catalysts for Price Formation under Cap-and-Trade (May 6, 2015). Available at SSRN: <http://ssrn.com/abstract=2603115> or <http://dx.doi.org/10.2139/ssrn.2603115>
- Laing, T., Palmer, C., Taschini, L., Wehkamp, J., Fuss, S., Reuter, W.H. (2015). Understanding the Demand for REDD+ Credits. *Grantham Research Institute on Climate Change and the Environment Working Paper Series*, WP 193, London, UK.
- Knopf, B., Koch, N.T., Grosjean, G., Fuss, S., Flachsland, C., Pahle, M., Jakob, M., Edenhofer, O. (2014), 'The European Emissions Trading System (EU ETS): ex-post analysis, the market stability reserve and options for a comprehensive reform', *Nota di Lavoro* 79.2014, Milan, Italy: Fondazione Eni Enrico Mattei.
- Absar, S.M., Fuss, S., Reuter, W.H. (2012). Investment in Water-Saving Irrigation Options under Uncertainties - A Comparative Analysis. IIASA Interim Report IR-12-017, International Institute for Applied Systems Analysis, Laxenburg, Austria.
- Elverhøi, M., Fleten, S.E., Fuss, S., Heggedal, A.M., Szolgayová, J., Troland, O.C. (2009). Evaluation of hydropower upgrade projects—a real options approach. *MPRA paper* 23005.
- Fuss, S. (2009). [A Perspective Paper on Forestry Carbon Sequestration as a Response to Climate Change](#), Copenhagen Consensus Center, Frederiksberg, Denmark.
- Golub, A., Fuss, S., Szolgayová, J., Obersteiner, M. (2009). Effects of Low-cost Offsets on Energy Investment - New Perspectives on REDD. *FEEM Nota di Lavoro* #17. Available at: <http://www.feem.it/userfiles/attach/Publication/NDL2009/NDL2009-017.pdf>
- Ortiz-Moctezuma, M.B., Pivovarchuk, D., Szolgayová, J., Fuss, S. (2010). Development of transportation infrastructure in the context of economic growth, *IIASA Interim Report* IR-08-045, Laxenburg, Austria.
- Fortin, I., Fuss, S., Hlouskova, J., Khabarov, N., Obersteiner, M., Szolgayová, J. (2007). An integrated CVaR and real options approach to investments in the energy sector. *Reihe Ökonomie/Economics Series* #209, Institut für Höhere Studien (IHS). Available at: <http://www.econstor.eu/bitstream/10419/72703/1/744055547.pdf>
- Van Zon, A., Fuss, S. (2006). Irreversible Investment under Uncertainty in Electricity Generation: A Clay-Clay-Vintage Portfolio Approach with an Application to Climate Change Policy in the UK, *UNU-MERIT Working Paper* 2006-035.
- Van Zon, A., Sabine Fuss, 2005, Investing in Energy Conversion Technologies - An Optimum Vintage Portfolio Selection Approach, *MERIT Research*

Conference Papers and Proceedings

- Kraxner, F., Shchepashchenko, D., Fuss, S., Krasovskiy, A., Patrizio, P., Leduc, S., Shvidenko, A., Kindermann, G., Yowargana, P., Yuwono, B., Lee, W.-K., Kim, M., Berndes, G. (2022). Potentials and Challenges of Land-based Negative Emissions – Global Multi-Purpose Afforestation. *Second International Conference on Negative Emissions*, Gothenburg.
- Minx, J.C., Callaghan, M., Repke, T., Lück, S., Müller-Hansen, F., Lamb, W., Fuss, S., Creutzig, F., Nemet, G., Roberts, C., Sovacool, B., Baum, C., Low, S., Riahi, K., Mitterutzner, B., Smith, S., Hepburn, C., Geden, O., Schenuit, F., House, J. (2022). AI for creating a living evidence map of the science of carbon dioxide removal. *Second International Conference on Negative Emissions*, Gothenburg.
- Fuss, S., Gusti, M., Broquet, G., Ciais, P., Tavoni, M., MacCallum, I. (2015). Assessing the Benefit of Carbon Monitoring Systems for REDD+ in Pan-Tropical Regions. Technical paper, *XIV WORLD FORESTRY CONGRESS*, Durban, South Africa, 7-11 September 2015. Available at: <http://foris.fao.org/wfc2015/api/file/5547cdc215ae74130aee6a1d/contents/4c66c6cd-3193-4edd-8de8-5e4c3783ad5e.pdf>
- Shvidenko, A., Schepaschenko, D., Fuss, S., Kraxner, F., Obersteiner, M. (2015). Evaluation of carbon sequestration service of forests - A Russian case-study. Technical Paper, *XIV World Forestry Congress*, 7-11 September 2015, Durban, South Africa. Available at: <http://foris.fao.org/wfc2015/api/file/5547887fef8e6e56ffdc9d/contents/f567bf8e-087b-43c4-acf0-e188679e2c01.pdf>
- Kraxner, F., Fuss, S., Leduc, S., Yaworgana, P., Kindermann, G., Pietsch, S., Hetland, J. (2015). Driving clean energy and green economy with the help of forest-based bioenergy with CCS (BECCS) - A case study on Indonesia. Technical Paper, *XIV World Forestry Congress*, 7-11 September 2015, Durban, South Africa. Available at: <http://foris.fao.org/wfc2015/api/file/5547ee1615ae74130aee6aca/contents/aafd844-ebc7-4088-811b-aa627b40fdbb.pdf>
- Fuss, S., Kraxner, F., Aoki, K., Kindermann, G., Schepaschenko, D., Shvidenko, A. (2015). Negative emissions from boreal forests – BECCS potentials and economic implications. *Abstracts of the 17th IBFRA Conference*, Towards a New Era of Forest Science in the Boreal Region, 24-29 May Rovaniemi, Finland. Available at: www.metla.fi/ibfra2015/IBFRA2015_abstracts.pdf
- Kraxner, F., Yoshikawa, K., Leduc, S., Fuss, S., Aoki, K., Yamagata, Y. (2014). Renewable Energy Production from Waste to Mitigate Climate Change and Counteract Soil Degradation – A Spatial Explicit Assessment for Japan. *Geophysical Research Abstracts* Vol. 16, EGU2014-15935, 2014 EGU General Assembly 2014.
- Blanc, I., Gschwind, B., Lefèvre, Beloin-Saint-Pierre, D., Ranchin, T., Ménard, L., Cofala, J., Fuss, S., Wyrwa, A., Drebszok, KM, Stetter, D., Schaap, M. (2013). The EnerGEO Platform of Integrated Assessment (PIA): environmental assessment of scenarios as a web service. *27th International Conference on Informatics for Environmental Protection*, Hamburg, Germany, pp. 85.
- Lefèvre, M., Gschwind, B., Blanc, B., Ranchin, T., Wyrwa, A., Drebszok, K.M., Cofala, J., Fuss, S. (2013). Human health impacts for Renewable Energy scenarios from the EnerGEO Platform of Integrated Assessment (PIA). *27th International Conference on Informatics for Environmental Protection*, Hamburg, Germany, pp. 120.
- Fuss, S., Havlík, P., Szolgayová, J., Obersteiner, M., Schmid, E. (2012). Agricultural price volatility under climate change: The impact of multiple objectives on commodity prices. *European Association of Agricultural Economists*, 123rd Seminar, February 23-24, 2012, Dublin, Ireland.

- Fuss, S., Havlík, P., Szolgayová, J., Obersteiner, M. (2011). Large-Scale Modelling of Global Food Security and Adaptation under Crop Yield Uncertainty. *European Association of Agricultural Economists International Congress*, Zurich, Switzerland.
- Fuss, S. (2011). The value of information: Applications in the field of land-use, In: *Socio-Economic Benefits from the Use of Earth Observation: Report from the international workshop*, M.T. Borzacchiello, M. Craglia (eds) 11-13 July 2011, JRC - Joint Research Centre, Ispra, Italy. DOI: <http://dx.doi.org/10.2788/78532>
- Fuss, S., Gusti, M., Kraxner, F., Aoki, K., Szolgayová, J. (2011). Boreal forests as a carbon sink: A real options perspective, In: *Boreal Forests in a Changing World: Challenges and Needs for Action. Proceedings of the international conference IBFRA*, Sukachev Institute of Forest SB RAS, 15-21 August 2011, Krasnoyarsk, Russia.
- Fuss, S., Havlík, P., Szolgayová, J., Obersteiner, M. (2011). A stochastic analysis of biofuel policies, In: *Energy Solutions for a Sustainable World - Proceedings of the Third International Conference on Applied Energy (ICEA2011)*, U. Desideri, J. Yan (eds) 16-18 May 2011, Perugia, Italy.
- Heumesser, C., Fuss, S., Szolgayová, J., Strauss, F., Schmid, E. (2011). Investment in Irrigation Systems under Weather Uncertainty. *European Association of Agricultural Economists 2011 International Congress*, Zürich, Switzerland.
- Reuter, W-H, Szolgayová, J., Fuss, S., Obersteiner, M. (2011). Renewable energy investment: Policy and market impacts, In: *Energy Solutions for a Sustainable World - Proceedings of the Third International Conference on Applied Energy (ICAE2011)*, U. Desideri, J. Yan (eds) 16-18 May 2011, Perugia, Italy.
- Reuter, W-H, Fuss, S., Szolgayová, J., Obersteiner, M. (2011). Investment in wind power & pumped storage in a Real Options Model - A policy analysis, In: *Proceedings of the World Renewable Energy Congress 2011 - Sweden*, 8-13 May 2011, Linköping, Sweden (3 November 2011).
- Szolgayová, J., Fuss, S., Khabarov, N., Obersteiner, M. (2010). Robust long-term energy portfolios - A climate mitigation analysis, *Proceedings of the International Conference on Applied Energy (ICAE 2010)*, 21-23 April 2010, Singapore, pp.782-793.
- Lemoine, DM, Fuss, S., Szolgayová, J., Obersteiner, M. (2010). Abatement, R&D policies, and negative emission technology in climate mitigation strategies, In: *Proceedings of the 3rd International Workshop on Uncertainty in Greenhouse Gas Inventories*, 22-24/09/2010, Lviv, Ukraine pp.149-158. Available at: www.ibspan.waw.pl/unws2015/previous/Proceedings_3rdWS.pdf#page=149
- Szolgayová, J., Fuss, S., Khabarov, N., Obersteiner, M. (2009). A dynamic CVaR-portfolio approach using real options: An application to energy investments, In: *Proceedings of the 6th International Conference on the European Energy Market (EEM 2009)*, 27-29 May 2009, Leuven, Belgium.
- Fuss, S., Khabarov, N., Szolgayová, J., Obersteiner, M. (2009). Valuing climate change uncertainty reductions for robust energy portfolios, *Proceedings from the 33rd International Symposium on Remote Sensing of Environment (ISRSE-33) "Sustaining the Millennium Development Goals"*, 4-8 May 2009, Stresa, Italy.
- Szolgayová, J., Obersteiner, M., Fuss, S. (2009). Optimal forest management with stochastic prices & endogenous fire risk, *Proceedings from the 33rd International Symposium on Remote Sensing of Environment (ISRSE-33) "Sustaining the Millennium Development Goals"*, 4-8 May 2009, Stresa, Italy.