

# Simone Gingrich

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November 2022

## Personal Details

Academic degrees	Priv.-Doz. in Social Ecology (2020), Dr.phil in Social Ecology (2010); Mag.rer.nat in Ecology (2004)
Current position	Assistant Professor in Social Ecology, focus on long-term socio-ecological research, Institute of Social Ecology, Department of Economics and Social Sciences, University of Natural Resources & Life Sciences Vienna (BOKU)
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ResearcherID	L-4862-2016
Nationality	Austrian
Children	Ida and Dominik, *2011

## Research interests

Long-term socio-ecological research (LTSER) at local to global scales; land use change; socio-ecological metabolism; climate impacts; political drivers; industrialization; inter- and transdisciplinary sustainability research

## Professional employment history

2021-	Assistant Professor in Social Ecology, focus on long-term socio-ecological research at Institute of Social Ecology, Department of Economics and Social Sciences, BOKU
2020-	Tenure track position in Social Ecology, focus on long-term socio-ecological research at Institute of Social Ecology, Department of Economics and Social Sciences, BOKU
2018-2020	Researcher and lecturer at Institute of Social Ecology, Department of Economics and Social Sciences, BOKU
2005-2018	Researcher and lecturer at Institute of Social Ecology, AAU
2011-2012	Parental leave (20.5 months)
2003-2005	Freelance researcher and curator at the Technical Museum Vienna
2004	Freelance researcher at Institute of Social Ecology, AAU

## Education and academic qualification

2020	Venia Legendi in Social Ecology, BOKU. Thesis: "The shifting sustainability problems of land use during industrialization. A socio-ecological perspective".
2006-2010	PhD in Social Ecology, AAU. Thesis: "A social ecology of European industrialisation: energy, material, carbon and the socio-ecological transition". Supervisor: F. Krausmann
Oct-Dec 2009	research stay as visiting PhD student at Sustainability Research Institute, University of Leeds, United Kingdom
May 2009	research stay at Pablo Olavide University, Seville, Spain
1998-2004	Mag. in Ecology, University of Vienna. Thesis: „Veränderungen von Landnutzung und Energieflüssen in ausgewählten Agrarökosystemen Oberösterreichs 1866 bis 2000“. Supervisor: M. Fischer-Kowalski
2002-2003	Erasmus semester at Université Montpellier II, France

## Research projects (selection)

- 2022- FOCAL-points – Household GHG footprints and Austrian climate policy: identifying leverage points for demand-side mitigation (Austrian Climate Research Panel KR21KB0K00001); PI
- 2022- LandCube - A global land-system data cube 1961-2018 (Austrian National Science Fund P 35420); WP lead
- 2022- Forest.Navigator - Navigating European forests and forest bioeconomy sustainably to EU climate neutrality (Horizon Europe); collaborator
- 2021- UNRAVEL - Towards enhancing the carbon stocks in forests: Unravelling the wood production potentials under sustainability conditions for Austria (Austrian Climate Research Panel KR20AC0K18081); WP lead
- 2018- HEFT – Hidden Emissions of Forest Transitions: GHG effects of socio-metabolic processes reducing pressures on forests (ERC Starting Grant 757995); PI
- 2018- CoBALUCE – Consumption-based accounts of land-use change related carbon emissions (Deutsche Forschungsgemeinschaft (DFG) 397106073); contributor
- 2017-2019 ILLAS – Integrating Land use Legacies in Landslide Risk Assessment to support Spatial Planning (Austrian Climate Research Panel); Co-PI
- 2016-2018 LTSER Concept II (Austrian Academy of Sciences); PI of SEC contribution
- 2012-2017 SFS – Sustainable Farm Systems (Canadian Social Sciences and Humanities Research Council Partnership Grant 895-2011-1020); deputy PI of SEC contribution
- 2014-2015 LTSER Concept (Austrian Academy of Sciences); deputy PI of SEC contribution
- 2012-2013 VOLANTE – Visions of land-use transitions in Europe (EU FP7 grant agreement 265104); contributor
- 2010-2011 ENVIEDAN – Environmental History of the Viennese Danube 1500-1890 (Austrian National Science Fund P 22265); contributor
- 2008-2011 GLOMETRA – the global metabolic transition (Austrian National Science Fund P 21012); contributor
- 2008-2011 Analyzing global HANPP (Austrian National Science Fund P 20812); contributor
- 2008-2010 Our Environment has a History (Ministry of Science and Research, Sparkling Science Programme); deputy PI
- 2008-2009 cc.alps (MAVA foundation for nature); deputy PI of SEC contribution
- 2007-2008 Adaptation Study (Austrian Ministry of Agriculture, Forestry, Environment and Water); deputy PI of SEC contribution
- 2005-2009 Long-Term Socio-Ecological Research Eisenwurzen (Austrian Ministry of Education, Science and Culture, ProVision Programme); contributor
- 2005-2007 Global HANPP (Austrian National Science Fund P 16692); contributor
- 2005-2007 TransEurope (Austrian National Science Fund P 16759); contributor
- 2005-2008 Carbon AUT 1830-2000 (Austrian Academy of Sciences, Global Change Programme); contributor

## Teaching activities

- 2022- Lecture-Seminar Long-Term Socio-ecological Research (with F. Krausmann, BOKU, MA level)
- 2021- Guided Reading Long-term socio-ecological research and environmental history (with M. Schmid, BOKU, MA-level)
- 2021- Specific Seminar Social Ecology (with K.-H. Erb, BOKU, MA level)
- 2019- Lecture Resource Use and Resource Economics (with J. Schmidt, BOKU, BA level)

- 2022 Seminar Advancing theories and methods in Social Ecology (with N. Eisenmenger, BOKU, PhD level)
- 2020-2021 Master/Doctoral Seminar Land Use and Global Change (with K.-H. Erb and H. Haberl, AAU, PhD and MA levels)
- 2019 Lecture and Discussion The UN Sustainable Development Goals: towards global sustainable resource use? (University of Applied Arts Vienna, BA level)
- 2018-2019 Bachelor Seminar Environment and Bio-Resources Management (BOKU, BA level)
- 2018-2019 Seminar Conflicts over land: socio-ecological perspectives (with M. Pichler, AAU, MA level)
- 2018 Peer Seminar in Social Ecology (with N. Eisenmenger, AAU, PhD level)
- 2018 Master/Doctoral Seminar Environmental History (with F. Krausmann and M. Schmid, AAU, PhD and MA levels)
- 2015-2018 Introductory Seminar Social Ecology (4 times with changing partners (M. Schmid, T. Kastner, C. Görg, N. Eisenmenger), AAU, MA level)
- 2008-2014 Seminar Environmental History Austria (4 times with M. Schmid, AAU, MA level)
- 2008-2010 Introductory course Interdisciplinary Studies (3 times with changing partners (M. Schmid, W. Haas), AAU, MA level)
- 2006-2008 Lecture Series Social Ecology (3 times with M. Fischer-Kowalski, AAU, MA level)

### **Supervision of graduate students**

- 2018- Supervision and co-supervision of 5 PhD students (4 ongoing, 1 completed) at BOKU
- 2014- Supervision and co-supervision of 11 master students (1 ongoing, 10 completed) at BOKU, AAU and University of Vienna

### **Awards and commissions of trust**

- 2021- Member of the “Commission for Interdisciplinary Ecological Studies” of the Austrian Academy of Sciences
- 2018- Member of the Austrian Academy of Sciences (Young Academy)
- 2022- Lead author of Austrian Assessment Report for Climate Change
- 2019-2022 Lead author and chapter lead author (since 2020) in APCC special report on Land Use, Land Management and Climate Change
- 2017 ERC Starting Grant for project “Hidden Emissions of Forest Transitions”
- 2010 Award of Excellence for PhD dissertation, awarded by the Austrian Ministry of Science and Research
- 2020 Awarded with IOP Trusted Reviewer status
- 2009- Reviewer for >25 scientific journals, including: Anthropocene, Ecological Economics, Ecological Indicators, Energy Policy, Environmental Research Letters, Environmental Science & Policy, Forests, Global Change Biology, Global Environmental Change, Journal of Land Use Science, Land Use Policy, Nature Communications
- 2016- Reviewer for project proposals to European Research Council (EU), Italian Ministry for University and Research (MUR) PRIN call (Italy), OeNB Anniversary Fund (Austria) and Le Studium (France)
- 2015- Reviewer for conference contributions: Conference of the European Society of Ecological Economics (ESEE 2015) in Leeds, United Kingdom

**Institutional responsibilities**

- 2022- Member of Biodiversitätskommission
- 2022- Deputy member of the "Academy Council" of the Austrian Academy of Sciences
- 2020- Co-lead of working group on sustainability research at BOKU (with G. Gratzer)
- 2020- Deputy member of ethics commission at BOKU
- 2018- Elected representative at Department Collegium (WiSo Department at BOKU)
- 2016- Research coordinator of thematic area "Long-term socio-ecological research and Environmental History" at the Institute of Social Ecology (2016-2018; 2020-)
- 2010- Member of master exam committees at AAU and BOKU
- 2016- Member of PhD defense tribunals and PhD reviewer (Université de Bordeaux, Universidade de Santiago de Compostela, Universitat de Barcelona, Universitat Autònoma de Barcelona, Université Pierre & Marie Curie, AAU, Universität Innsbruck)
- 2018-2022 Member of Transdisciplinary Advisory Board to Joint Programming Initiative Climate
- 2020 Member of working group on habilitation procedures at BOKU
- 2005-2011 Coordinator of the Center for Environmental History (ZUG), AAU
- 2005-2008 Coordinator of teaching agendas, Institute of Social Ecology, AAU

## Publications

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### Journal articles

1. **Gingrich, S**, Magerl, A, Matej, S, Le Noë, J, 2022. Forest Transitions in the United States, France and Austria: dynamics of forest change and their socio- metabolic drivers. *Journal of Land Use Science* 1–21. <https://doi.org/10.1080/1747423X.2021.2018514>
2. Bauernschuster, S., Pichler, M., Nanhthavong, V., Bernhard, R., Epprecht, M., **Gingrich, S.**, 2022. Carbon emissions from land acquisitions in Laos. *Ecology & Society* 27, art45. <https://doi.org/10.5751/ES-13395-270345>
3. Bauernschuster, S., Pichler, M., Ingalls, M., Thongmanivong, S., **Gingrich, S.**, 2022. Discursive and biophysical dimensions of land sparing policies in Laos: Implications for greenhouse gas emissions and food security. *Land Use Policy* 120, 106293. <https://doi.org/10.1016/j.landusepol.2022.106293>
4. Bhan, M., Meyfroidt, P., Matej, S., Erb, K.-H., **Gingrich, S.**, 2022. A mid-20 th century inventory-based estimate of global terrestrial vegetation carbon stocks. *Journal of Land Use Science* 17, 429–453. <https://doi.org/10.1080/1747423X.2022.2112779>
5. Einarsson, R., Billen, G., Aguilera, E., Garnier, J., **Gingrich, S.**, Grizzetti, B., Lassaletta, L., Le Noë, J., Sanz-Cobena, A., 2022. The relative productivity of organic agriculture must be considered in the full food-system context. A comment on Connor (2022). *Agricultural Systems* 199, 103413. <https://doi.org/10.1016/j.agsy.2022.103413>
6. Erb, K., Haberl, H., Le Noë, J., Tappeiner, U., Tasser, E., **Gingrich, S.**, 2022. Changes in perspective needed to forge ‘no-regret’ forest-based climate change mitigation strategies. *Global Change Biology Bioenergy* 14, 246–257. <https://doi.org/10.1111/gcbb.12921>
7. Erb, K-H, **Gingrich, S**, 2022. Biomass—Critical limits to a vital resource. *One Earth* 5 (1), 7–9. <https://doi.org/10.1016/j.oneear.2021.12.014>
8. Infante-Amate, J., Iriarte-Goñi, I., Urrego-Mesa, A., **Gingrich, S.**, 2022. From woodfuel to industrial wood: A socio-metabolic reading of the forest transition in Spain (1860–2010). *Ecological Economics* 201, 107548. <https://doi.org/10.1016/j.ecolecon.2022.107548>
9. Kastner, T, Matej, S, Forrest, M, **Gingrich, S**, Haberl, H, Hickler, T, Krausmann, F, Lasslop, G, Niedertscheider, M, Plutzer, C, Schwarzmüller, F, Steinkamp, J, Erb, K-H, 2022. Land use intensification increasingly drives the spatiotemporal patterns of the global human appropriation of net primary production in the last century. *Global Change Biology* 28 (1), 307–322. <https://doi.org/10.1111/gcb.15932>
10. Magerl, A, Matej, S, Kaufmann, L, Le Noë, J, Erb, K, **Gingrich, S**, 2022. Forest carbon sink in the U.S. (1870–2012) driven by substitution of forest ecosystem service flows. *Resources, Conservation and Recycling* 176, 105927. <https://doi.org/10.1016/j.resconrec.2021.105927>
11. Pichler, M, Schmid, M, **Gingrich, S**, 2022. Mechanisms to exclude local people from forests: Shifting power relations in forest transitions. *Ambio* 51 (4), 849–861. <https://doi.org/10.1007/s13280-021-01613-y>
12. **Gingrich, S**, Lauk, C, Krausmann, F, Erb, K-H, Le Noë, J, 2021. Changes in energy and livestock systems largely explain the forest transition in Austria (1830–1910). *Land Use Policy* 109, 105624. <https://doi.org/10.1016/j.landusepol.2021.105624>
13. Bhan, M, **Gingrich, S**, Roux, N, Le Noë, J, Kastner, T, Matej, S, Schwarzmüller, F, Erb, K-H, 2021. Quantifying and attributing land use-induced carbon emissions to biomass consumption: A critical assessment of existing approaches. *Journal of Environmental Management* 286, 112228. <https://doi.org/10.1016/j.jenvman.2021.112228>
14. Bhan, M, **Gingrich, S**, Matej, S, Fritz, S, Erb, K-H, 2021. Land Use Increases the Correlation between Tree Cover and Biomass Carbon Stocks in the Global Tropics. *Land* 10, 1217. <https://doi.org/10.3390/land1011217>
15. Bertsch-Hoermann, B, Egger, C, Gaube, V, **Gingrich, S**, 2021. Agroforestry trade-offs between biomass provision and aboveground carbon sequestration in the alpine Eisenwurzen region,

- Austria. *Regional Environmental Change* 21 (3), 1–15. <https://doi.org/10.1007/s10113-021-01794-y>
16. Billen, G, Aguilera, E, Einarsson, R, Garnier, J, **Gingrich, S**, Grizzetti, B, Lassaletta, L, Le Noë, J, Sanz-Cobena, A, 2021. Reshaping the European agro-food system and closing its nitrogen cycle: The potential of combining dietary change, agroecology, and circularity. *One Earth* 4 (6), 839–850. <https://doi.org/10.1016/j.oneear.2021.05.008>
  17. Kastner, T, Chaudhary, A, **Gingrich, S**, Marques, A, Persson, U M, Bidoglio, G, Le Provost, G, Schwarzmüller, F, 2021. Global agricultural trade and land system sustainability: Implications for ecosystem carbon storage, biodiversity, and human nutrition. *One Earth* 4 (10), 1425-1443. <https://doi.org/10.1016/j.oneear.2021.09.006>
  18. Knevels, R, Brenning, A, **Gingrich, S**, Heiss, G, Lechner, T, Leopold, P, Plutzer, C, Proske, H, Petschko, H, 2021. Towards the Use of Land Use Legacies in Landslide Modeling: Current Challenges and Future Perspectives in an Austrian Case Study. *Land* 10, 954. <https://doi.org/10.3390/land10090954>
  19. Le Noë, J, Erb, K-H, Matej, S, Magerl, A, Bhan, M, **Gingrich, S**, 2021. Altered growth conditions more than reforestation counteracted forest biomass carbon emissions 1990–2020. *Nature Communications* 12, 6075. <https://doi.org/10.1038/s41467-021-26398-2>
  20. Le Noë, J, Erb, K-H, Matej, S, Magerl, A, Bhan, M, **Gingrich, S**, 2021. Socio-ecological drivers of long-term ecosystem carbon stock trend: An assessment with the LUCCA model of the French case. *Anthropocene*, 33, 100275. <https://doi.org/10.1016/j.ancene.2020.100275>
  21. Pichler, M, Bhan, M, **Gingrich, S**, 2021. The social and ecological costs of reforestation. Territorialization and industrialization of land use accompany forest transitions in Southeast Asia. *Land Use Policy*, 101, 105180. <https://doi.org/10.1016/j.landusepol.2020.105180>
  22. Eisenmenger, N, Pichler, M, Krenmayr, N, Noll, D, Plank, B, Schalmann, E, Wandl, M-T, **Gingrich, S**, 2020. The Sustainable Development Goals prioritize economic growth over sustainable resource use: a critical reflection on the SDGs from a socio-ecological perspective. *Sustainability Science* 15, 1101-1110 <https://doi.org/10.1007/s11625-020-00813-x>
  23. Knevels, R, Brenning, A, **Gingrich, S**, Gruber, E, Lechner, T, Leopold, P, Petschko, H, Plutzer, C, 2020. Kulturlandschaft im Wandel: Ein indikatorenbasierter Rückblick bis in das 19. Jahrhundert. Fallstudie anhand der Gemeinden Waidhofen/Ybbs und Paldau. *moegg* 1, 255–285. <https://doi.org/10.1553/moegg162s255>
  24. Le Noë, J, Roux, N, Billen, G, **Gingrich, S**, Erb, K, Krausmann, F, Thieu, V, Silvestre, M, Garnier, J, 2020. The phosphorus legacy offers opportunities for agro ecological transition (France 1850–2075). *Environmental Research Letters*, 15, 064022. <https://doi.org/10.1088/1748-9326/ab82cc>
  25. Le Noë, J, Matej, S, Magerl, A, Bhan, M, Erb, K, **Gingrich, S**, 2020. Modelling and empirical validation of long-term carbon sequestration in forests (France, 1850-2015). *Global Change Biology* 26, 2421-2434. <https://doi.org/10.1111/gcb.15004>
  26. Scheidel, A, **Gingrich, S**, 2020. Toward sustainable and just forest recovery: research gaps and potentials for knowledge integration. *One Earth* 3, 680-690. <https://doi.org/10.1016/j.oneear.2020.11.005>
  27. **Gingrich, S**, Lauk, C, Niedertscheider, M, Pichler, M, Schaffartzik, A, Schmid, M, Magerl, A, Le Noë, J, Bhan, M, Erb, K.-H, 2019. Hidden emissions of forest transitions: a socio-ecological reading of forest change. *Current Opinion in Environmental Sustainability* 38, 14–21. <https://doi.org/10.1016/j.cosust.2019.04.005>
  28. Magerl, A, Le Noë, J, Erb, K, Bhan, M, **Gingrich, S**, 2019. A comprehensive data-based assessment of forest ecosystem carbon stocks in the U.S. 1907-2012. *Environmental Research Letters* 14, 125015. <https://doi.org/10.1088/1748-9326/ab5cb6>
  29. Marull, J, Cattaneo, C, **Gingrich, S**, de Molina, M.G, Guzmán, G.I, Watson, A, MacFadyen, J, Pons, M, Tello, E, 2019. Comparative Energy-Landscape Integrated Analysis (ELIA) of past and present agroecosystems in North America and Europe from the 1830s to the 2010s. *Agricultural Systems* 175, 46–57. <https://doi.org/10.1016/j.agsy.2019.05.011>

30. **Gingrich, S**, Krausmann, F, 2018. At the core of the socio-ecological transition: Agroecosystem energy fluxes in Austria 1830–2010. *Science of The Total Environment* 645, 119–129. <https://doi.org/10.1016/j.scitotenv.2018.07.074>
31. **Gingrich, S**, Marco, I, Aguilera, E, Padró, R, Cattaneo, C, Cunfer, G, Guzmán, G.I, MacFadyen, J, Watson, A, 2018a. Agroecosystem energy transitions in the old and new worlds: trajectories and determinants at the regional scale. *Regional Environmental Change* 18, 1089–1101. <https://doi.org/10.1007/s10113-017-1261-y>
32. **Gingrich, S**, Theurl, M.C, Erb, K, Krausmann, F, 2018b. Regional specialization and market integration: agroecosystem energy transitions in Upper Austria. *Regional Environmental Change* 18, 937–950. <https://doi.org/10.1007/s10113-017-1145-1>
33. Angelstam, P, Manton, M, Elbakidze, M, Sijtsma, F, Adamescu, M.C, Avni, N, Beja, P, Bezak, P, Zyblikova, I, Cruz, F, Bretagnolle, V, Díaz-Delgado, R, Ens, B, Fedoriak, M, Flaim, G, **Gingrich, S**, Lavi-Neeman, M, Medinets, S, Melecis, V, Muñoz-Rojas, J, Schäckermann, J, Stocker-Kiss, A, Setälä, H, Stryamets, N, Taka, M, Tallec, G, Tappeiner, U, Törnblom, J, Yamelynets, T, 2018. LTSER platforms as a place-based transdisciplinary research infrastructure: learning landscape approach through evaluation. *Landscape Ecology*. <https://doi.org/10.1007/s10980-018-0737-6>
34. Dick, J, Orenstein, D.E, Holzer, J.M, Wohner, C, Achard, A.-L, Andrews, C, Avriel-Avni, N, Beja, P, Blond, N, Cabello, J, Chen, C, Díaz-Delgado, R, Giannakis, G.V, **Gingrich, S**, Izakovicova, Z, Krauze, K, Lamouroux, N, Leca, S, Melecis, V, Miklós, K, Mimikou, M, Niedrist, G, Piscart, C, Postolache, C, Psomas, A, Santos-Reis, M, Tappeiner, U, Vanderbilt, K, Van Ryckegem, G, 2018. What is socio-ecological research delivering? A literature survey across 25 international LTSER platforms. *Science of The Total Environment* 622–623, 1225–1240. <https://doi.org/10.1016/j.scitotenv.2017.11.324>
35. Erb, K.-H, Kastner, T, Plutzer, C, Bais, A.L.S, Carvalhais, N, Fetzel, T, **Gingrich, S**, Haberl, H, Lauk, C, Niedertscheider, M, Pongratz, J, Thurner, M, Luysaert, S, 2018. Unexpectedly large impact of forest management and grazing on global vegetation biomass. *Nature* 553, 73–76. <https://doi.org/10.1038/nature25138>
36. Gizicki-Neundlinger, M, **Gingrich, S**, Güldner, D, Krausmann, F, Tello, E, 2017. Land, food, and labour in pre-industrial agro-ecosystems. A socio-ecological perspective on early 19th century seigneurial systems. *Historia Agraria* 71, 37–78.
37. **Gingrich, S**, Schmid, M, Dirnböck, T, Dullinger, I, Garstenauer, R, Gaube, V, Haberl, H, Kainz, M, Kreiner, D, Mayer, R, Mirtl, M, Sass, O, Schauppenlehner, T, Stocker-Kiss, A, Wildenberg, M, 2016. Long-Term Socio-Ecological Research in Practice: Lessons from Inter- and Transdisciplinary Research in the Austrian Eisenwurzen. *Sustainability* 8, 743. <https://doi.org/10.3390/su8080743>
38. Galán, E.S, Padró, R, Marco, I, Tello, E, Cunfer, G, Guzman, G.I, Gonzalez de Molina, M, Krausmann, F, **Gingrich, S**, Sacristán, V, Moreno, D, 2016. Widening the analysis of Energy Return On Investment (EROI) in agro-ecosystems: Socio-ecological transitions to industrialized farm systems (the Vallès County, Catalonia, c.1860 and 1999). *Ecological Modelling* 336, 13–25. <https://doi.org/10.1016/j.ecolmodel.2016.05.012>
39. Tello, E, Galán, E, Sacristán, V, Cunfer, G, Guzmán, G.I, González de Molina, M, Krausmann, F, **Gingrich, S**, Padró, R, Marco, I, Moreno-Delgado, D, 2016. Opening the black box of energy throughputs in farm systems: A decomposition analysis between the energy returns to external inputs, internal biomass reuses and total inputs consumed (the Vallès County, Catalonia, c.1860 and 1999). *Ecological Economics* 121, 160–174. <https://doi.org/10.1016/j.ecolecon.2015.11.012>
40. **Gingrich, S**, Haidvogel, G, Krausmann, F, Preis, S, Garcia-Ruiz, R, 2015a. Providing Food While Sustaining Soil Fertility in Two Pre-industrial Alpine Agroecosystems. *Human Ecology* 43, 395–410. <https://doi.org/10.1007/s10745-015-9754-0>
41. **Gingrich, S**, Niedertscheider, M, Kastner, T, Haberl, H, Cosor, G, Krausmann, F, Kuemmerle, T, Müller, D, Reith-Musel, A, Jepsen, M.R, Vadineanu, A, Erb, K.-H, 2015b. Exploring long-term trends in land use change and aboveground human appropriation of net primary production in nine European countries. *Land Use Policy* 47, 426–438. <https://doi.org/10.1016/j.landusepol.2015.04.027>

42. Grešlová, P, **Gingrich, S**, Krausmann, F, Chromý, P, Jančák, V, 2015. Social metabolism of Czech agriculture in the period 1830–2010. *AUC GEOGRAPHICA* 50, 23–35. <https://doi.org/10.14712/23361980.2015.84>
43. Schaffartzik, A, Mayer, A, **Gingrich, S**, Eisenmenger, N, Loy, C, Krausmann, F, 2014. The global metabolic transition: Regional patterns and trends of global material flows, 1950–2010. *Global Environmental Change* 26, 87–97. <https://doi.org/10.1016/j.gloenvcha.2014.03.013>
44. Dullinger, S, Essl, F, Rabitsch, W, Erb, K.-H, **Gingrich, S**, Haberl, H, Hulber, K, Jarosik, V, Krausmann, F, Kuhn, I, Pergl, J, Pysek, P, Hulme, P.E, 2013. Europe's other debt crisis caused by the long legacy of future extinctions. *Proceedings of the National Academy of Sciences* 110, 7342–7347. <https://doi.org/10.1073/pnas.1216303110>
45. Gierlinger, S, Haidvogel, G, **Gingrich, S**, Krausmann, F, 2013. Feeding and Cleaning the city: The role of the urban waterscape in provision and disposal in Vienna during the industrial transformation. *Water History* 5, 219–239. <https://doi.org/doi:10.1007/s12685-013-0075-1>
46. Krausmann, F, Erb, K.-H, **Gingrich, S**, Haberl, H, Bondeau, A, Gaube, V, Lauk, C, Plutzer, C, Searchinger, T.D, 2013. Global human appropriation of net primary production doubled in the 20th century. *Proceedings of the National Academy of Sciences* 110, 10324–10329. <https://doi.org/doi:10.1073/pnas.1211349110>
47. **Gingrich, S**, Haidvogel, G, Krausmann, F, 2012. The Danube and Vienna: urban resource use, transport and land use 1800–1910. *Regional Environmental Change* 12, 283–294. <https://doi.org/doi:10.1007/s10113-010-0201-x>
48. Haberl, H, Steinberger, J.K, Plutzer, C, Erb, K.-H, Gaube, V, **Gingrich, S**, Krausmann, F, 2012. Natural and socioeconomic determinants of the embodied human appropriation of net primary production and its relation to other resource use indicators. *Ecological Indicators* 23, 222–231. <https://doi.org/10.1016/j.ecolind.2012.03.027>
49. Niedertscheider, M, **Gingrich, S**, Erb, K.-H, 2012. Changes in land use in South Africa between 1961 and 2006: an integrated socio-ecological analysis based on the human appropriation of net primary production framework. *Regional Environmental Change* 12, 715–727. <https://doi.org/10.1007/s10113-012-0285-6>
50. Krausmann, F, **Gingrich, S**, Haberl, H, Erb, K.-H, Musel, A, Kastner, T, Kohlheb, N, Niedertscheider, M, Schwarzmüller, E, 2012. Long-term trajectories of the human appropriation of net primary production: Lessons from six national case studies. *Ecological Economics* 77, 129–138. <https://doi.org/doi:10.1016/j.ecolecon.2012.02.019>
51. Lauk, C, Haberl, H, Erb, K.-H, **Gingrich, S**, Krausmann, F, 2012. Global socioeconomic carbon stocks in long-lived products 1900–2008. *Environmental Research Letters* 7, 034023. <https://doi.org/10.1088/1748-9326/7/3/034023>
52. Singh, S.J, Krausmann, F, **Gingrich, S**, Haberl, H, Erb, K.-H, Lanz, P, Martinez-Alier, J, Temper, L, 2012. India's biophysical economy, 1961–2008. Sustainability in a national and global context. *Ecological Economics* 76, 60–69. <https://doi.org/10.1016/j.ecolecon.2012.01.022>
53. **Gingrich, S**, 2011. Foreign trade and early industrialisation in the Habsburg Monarchy and the United Kingdom — Two extremes in comparison. *Ecological Economics* 70, 1280–1288. <https://doi.org/10.1016/j.ecolecon.2010.08.013>
54. **Gingrich, S**, Kušková, P, Steinberger, J.K, 2011. Long-term changes in CO2 emissions in Austria and Czechoslovakia—Identifying the drivers of environmental pressures. *Energy Policy* 39, 535–543. <https://doi.org/10.1016/j.enpol.2010.10.006>
55. Krausmann, F, **Gingrich, S**, Nourbakhch-Sabet, R, 2011. The Metabolic Transition in Japan: A Material Flow Account for the Period From 1878 to 2005. *Journal of Industrial Ecology* 15, 877–892. <https://doi.org/10.1111/j.1530-9290.2011.00376.x>
56. Weisz, U, **Gingrich, S**, Winiwarter, V, Radits, F, Soukup-Altrichter, K, Schmied, C, Spranz, A, Antić, A, Bosina, C, Ecker, I, 2011. Schüler (innen) auf der Suche nach den Wurzeln unserer Umweltprobleme. *Umwelthistorische Forschung in technischen Schulen als Beitrag zur Bildung für nachhaltige Entwicklung. GAIA-Ecological Perspectives for Science and Society* 20, 122–128. <https://doi.org/10.14512/gaia.20.2.9>

57. Erb, K.-H, Krausmann, F, Gaube, V, **Gingrich, S**, Bondeau, A, Fischer-Kowalski, M, Haberl, H, 2009. Analyzing the global human appropriation of net primary production—processes, trajectories, implications. An introduction. *Ecological Economics* 69, 250–259. <http://dx.doi.org/10.1016/j.ecolecon.2009.07.001>
58. Krausmann, F, **Gingrich, S**, Eisenmenger, N, Erb, K.-H, Haberl, H, Fischer-Kowalski, M, 2009. Growth in global materials use, GDP and population during the 20th century. *Ecological Economics* 68, 2696–2705. <https://doi.org/10.1016/j.ecolecon.2009.05.007>
59. Krausmann, F, Haberl, H, Erb, K.-H, Wiesinger, M, Gaube, V, **Gingrich, S**, 2009. What determines geographical patterns of the global human appropriation of net primary production? *Journal of Land Use Science* 4, 15–33. <https://doi.org/10.1080/17474230802645568>
60. Erb, K.-H, **Gingrich, S**, Krausmann, F, Haberl, H, 2008. Industrialization, Fossil Fuels, and the Transformation of Land Use. *Journal of Industrial Ecology* 12, 686–703. <https://doi.org/10.1111/j.1530-9290.2008.00076.x>
61. Krausmann, F, Erb, K.-H, **Gingrich, S**, Lauk, C, Haberl, H, 2008. Global patterns of socioeconomic biomass flows in the year 2000: A comprehensive assessment of supply, consumption and constraints. *Ecological Economics* 65, 471–487. <https://doi.org/10.1016/j.ecolecon.2007.07.012>
62. Kuskova, P, **Gingrich, S**, Krausmann, F, 2008. Long term changes in social metabolism and land use in Czechoslovakia, 1830–2000: An energy transition under changing political regimes. *Ecological Economics* 68, 394–407. <https://doi.org/10.1016/j.ecolecon.2008.04.006>
63. **Gingrich, S**, Erb, K.-H, Krausmann, F, Gaube, V, Haberl, H, 2007. Long-term dynamics of terrestrial carbon stocks in Austria: a comprehensive assessment of the time period from 1830 to 2000. *Regional Environmental Change* 7, 37–47. <https://doi.org/10.1007/s10113-007-0024-6>
64. Haberl, H, Erb, K.H, Krausmann, F, Gaube, V, Bondeau, A, Plutzer, C, **Gingrich, S**, Lucht, W, Fischer-Kowalski, M, 2007. Quantifying and mapping the human appropriation of net primary production in earth's terrestrial ecosystems. *Proceedings of the National Academy of Sciences* 104, 12942–12947. <https://doi.org/10.1073/pnas.0704243104>

## Special Issue

1. **Gingrich, S**, Cunfer, G, Aguilera E., 2018. Energy transitions in agroecosystems: Long-term changes in agroecosystem energy efficiencies on both sides of the Atlantic. *Regional Environmental Change*, 18, pp. 929–1101.

## Book chapters and editorials

1. **Gingrich, S**, Schaffartzik, A, 2022. Das können wir besser! Möglichkeiten für eine sozialökologische Transformation. In: Fritz, J; Tomaschek, N (Ed.): Transformationsgesellschaft. Visionen und Strategien für einen sozialökologischen Wandel, University – Society – Industry, Band 11; Waxmann, Münster, New York, pp. 15–26
2. Erb, KH, **Gingrich, S**, 2022. How can forests help us? Thunberg, G (Ed.): *The Climate Book*, Penguin Random House, pp. 230–232
3. **Gingrich, S**, Güldner, D, Schmid, M, 2020. Eine sozial-ökologische Interpretation der „Forest Transition“ in den österreichischen Alpenländern des 19. Jahrhunderts. In: Schanbacher, A (Ed.), *Ressourcen in historischer Perspektive. Landschaft, Literatur und Nachhaltigkeit*, Universitätsverlag Göttingen, Göttingen, pp. 117–146.
4. **Gingrich, S**, Cunfer, G, Aguilera, E, 2018. Agroecosystem energy transitions: exploring the energy-land nexus in the course of industrialization. Editorial to special issue. *Regional Environmental Change* 18, pp. 929–936. <https://doi.org/10.1007/s10113-018-1322-x>
5. Winiwarter V, Bürkner M, **Gingrich S**, Groß R, Haidvogel G, Hohensinner S, Schmid M, Krausmann F, 2018. Environmental Histories of contemporary Austria: An Introduction, in: Landry, M, Kupper, P. (Eds.), *Austrian Environmental History, Contemporary Austrian Studies*. Innsbruck University Press, pp. 25–48.
6. Gizicki-Neundlinger M, **Gingrich S**, Güldner D, 2017. Sustainability Challenges of Pre-industrial Local Food Systems—Insights from Long-Term Socio-Ecological Research in Austria. In: Fraňková,

- E, Haas, W, Singh, S.J. (Eds.), *Socio-Metabolic Perspectives on the Sustainability of Local Food Systems*. Springer, pp. 165–191.
7. **Gingrich S**, Lauk C, Kastner T, Krausmann F, Haberl H, Erb K.-H., 2016. A Forest Transition: Austrian Carbon Budgets 1830–2010. In: Haberl, H, Fischer-Kowalski, M, Krausmann, F, Winiwarter, V. (Eds.), *Social Ecology: Society-Nature Relations across Time and Space*. Springer, pp. 417–431.
  8. Niedertscheider, M, Fetzl, T, Haberl, H, Krausmann, F, Gaube, V, **Gingrich, S**, Lauk, C, Plutzer, C, Erb, K.H., 2016. Africa's Land System Trajectories 1980–2005, in: Haberl, H., Fischer-Kowalski, M., Krausmann, F., Winiwarter, V. (Eds.), *Social Ecology. Society-Nature Relations across Time and Space*. Springer International Publishing, Cham, pp. 361–373.
  9. **Gingrich, S**, Schmid, M, Gradwohl, M, Krausmann, F, 2013 How Material and Energy Flows Change Socio-natural Arrangements: The Transformation of Agriculture in the Eisenwurzen Region, 1860-2000, in: Singh, S.J, Haberl, H, Chertow, M, Mirtl, M, Schmid, M. (Eds.), *Long Term Socio-Ecological Research. Studies in Society - Nature Interactions Across Spatial and Temporal Scales, Human - Environment Interactions*. Springer, pp. 297–313.
  10. Haberl, H, Erb, K.-H, Gaube, V, **Gingrich, S**, Singh, S.J, 2013. Socioeconomic Metabolism and the Human Appropriation of Net Primary Production: What Promise Do They Hold for LTSE?, in: Singh, S.J, Haberl, H, Chertow, M, Mirtl, M, Schmid, M. (Eds.), *Long Term Socio-Ecological Research. Studies in Society - Nature Interactions Across Spatial and Temporal Scales*. Springer, pp. 29–52.
  11. Haidvogel, G, **Gingrich, S**, 2010. Wasserstraße Donau: Transport Und Handel Im Machland Und Auf Der Donau Im 19. Und 20. Jahrhundert, in: Winiwarter, V, Schmid, M. (Eds.), *Umwelt Donau: Eine Andere Geschichte. Katalog Zur Ausstellung Des Niederösterreichischen Landesarchivs Im Ehemaligen Pfarrhof In Ardagger Markt*. NÖ Institut für Landeskunde, pp. 91–103.