



Master thesis - Current list of topics

Topic	Title:	Pot. Supervisor:	Related topics
W.01	Wasserkonflikte in Berlin/Brandenburg (Nur Bachelor-Thesis)	Eisenack / Roggero	(builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Identifikation of aktuellen Wasserkonflikten anhand einer Analyse der Tagespresse.		
	References: https://www.cliwac.de/		
	Prerequisites (methods / theories / content): Umwelt- und Ressourcenökonomik		
	Advantageous / to learn (methods / theories / content): Zugang zur Region, Qualitative Inhaltsanalyse		

Topic	Title:	Pot. Supervisor:	Related topics
W.02	The Governance of Flash Floods in Berlin	Eisenack / Roggero	(builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Conduct a mapping of all relevant stakeholders involved in the prevention of climate-change related flash floods in Berlin. Identify key action situations and the social dilemmas characterizing them.		
	References: https://www.cliwac.de/ Bisaro, A., & Hinkel, J. (2016). Governance of social dilemmas in climate change adaptation. <i>Nature Climate Change</i> , 6, 354–359. Hinkel, J., & Bisaro, A. (2016). Methodological choices in solution-oriented adaptation research: A diagnostic framework. <i>Regional Environmental Change</i> , 16, 7–20. Roggero, M., Bisaro, A., & Villamayor-Tomas, S. (2017). Institutions in the climate adaptation literature: A systematic literature review through the lens of the Institutional Analysis and Development framework. <i>Journal of Institutional Economics</i> , 14(3), 423–448. https://doi.org/10.1017/S1744137417000376		
	Prerequisites (methods / theories / content): IAD		
	Advantageous / to learn (methods / theories / content): Qualitative social research skills, institutional analysis, good command of German (analysis of policy documents and interviews with decision-makers).		

Topic W.03	Title: NN	Pot. Supervisor: Hirschfeld	Related topics (builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description:		
	References: https://www.cliwac.de/		
	Prerequisites (methods / theories / content):		
	Advantageous / to learn (methods / theories / content):		

Topic P.02	Title: City climate games	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Develop a game theoretic model that sheds light on urban climate action and global climate cooperation among cities.		
	References: Andonova, Liliانا B., Thomas N. Hale, and Charles B. Roger (2017) National Policy and Transnational Governance of Climate Change: Substitutes or Complements?, <i>International Studies Quarterly</i> 61 (2): 253–68. Hagen, A., L. Kähler and K. Eisenack (2017) Transnational Environmental Agreements with Heterogeneous Actors, In S. Çağatay (ed.) <i>Economics of International Environmental Agreements: a Critical Approach</i> , Routledge. (see https://www.econstor.eu/bitstream/10419/148222/1/846907933.pdf) Different earlier master theses on similar topics.		
	Prerequisites (methods / theories / content): Game theory, environment and resource economics		
	Advantageous / to learn (methods / theories / content): Urban geography, economy, or related		

Topic P.04	Title: Mapping climate protection initiatives	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Select and describe an illustrative set of non-governmental / subnational initiatives for climate policy and classify them either by their (i) scope, (ii) reasons for coming into existence, (iii) potential environmental effectiveness.		
	References: Earlier master theses Bulkeley, H. and Broto, V. (2013). Government by experiment? global cities and the governing of climate change, Transactions of the Institute of British Geographers, 38, 361–375. Hagen, A., L. Kähler and K. Eisenack (2017) Transnational Environmental Agreements with Heterogeneous Actors, In S. Çağatay (ed.) Economics of International Environmental Agreements: a Critical Approach, Routledge. Helfrich, S., Heinrich-Böll-Stiftung (Hg.) (2012) Commons – Für eine neue Politik jenseits von Markt und Staat. Transcript Verlag Ostrom, E. (2012) Nested externalities and polycentric institutions: must we wait for global solutions to climate change before taking actions at other scales?, Economic Theory, 49, 353-369.		
	Prerequisites (methods / theories / content): Comparative institutional analysis / empirical social science / climate policy		
	Advantageous / to learn (methods / theories / content): IAD / SES framework		

Topic P.07	Title: Case study of urban climate action in the city of xxx	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel): multiple P.07
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Chose a city and conduct a case study of its climate policy. It might be a very active city, or a quite important but inactive city. The study ideally traces the urban climate action over several years.		
	References: Andonova, Liliana B., Thomas N. Hale, and Charles B. Roger (2017) National Policy and Transnational Governance of Climate Change: Substitutes or Complements?, International Studies Quarterly 61 (2): 253–68. Reckien, Diana, Monica Salvia, Oliver Heidrich, Jon Marco Church, Filomena Pietrapertosa, Sonia De Gregorio-Hurtado, Valentina D’Alonzo, et al. 2018. “How Are Cities Planning to Respond to Climate Change? Assessment of Local Climate Plans from 885 Cities in the EU-28.” Journal of Cleaner Production 191: 207–19.		
	Prerequisites (methods / theories / content): Empirical social science, field access to selected city		
	Advantageous / to learn (methods / theories / content): Case study methods, process tracing		

Topic P.09	Title: XYZ as a driver of sub-national climate action	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel): P.07, multiple P.09
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Choose one potential set of drivers (XYZ), e.g. out of the following, and analyze whether it can explain urban climate action: <ul style="list-style-type: none"> • Co-benefits • Vulnerability • Political economy incentives • National policies • Learning in transnational networks The driver can be studied with one out of several possible approaches: single case study, comparative case study, data analysis with inferential statistics or machine learning or QCA,		
	References: Andonova, Liliana B., Thomas N. Hale, and Charles B. Roger (2017) National Policy and Transnational Governance of Climate Change: Substitutes or Complements?, International Studies Quarterly 61 (2): 253–68.		
	Prerequisites (methods / theories / content): Environmental and resource economics		
	Advantageous / to learn (methods / theories / content): Appropriate methods (see Description).		

Topic PE.01	Title: A Case of Knowledge Governance	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel): //
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Identify a case and conduct a case study on knowledge governance Data and information do not exogenously 'fall upon' actors in an arbitrary way. Available data and information is also not used by actors 'as is'. Instead, institutions determine to a considerable degree (i) the kind of data the actors aim to obtain; (ii) the kind of uncertainties or data gaps they accept or aim to resolve; (iii) the way how data is further processed; (iv) the way how data is used for decision-making; (v) the possibility to shape the data or information that becomes available to others. Organisations are shaped by various rules that settle how sub-units or individuals working with or within an organisation shall behave in relation to data and information. Internal standards determine what kind of information is to be used in certain repeated decision-making situations, sometimes with detailed prescriptions how to integrated data at different stages. The master thesis selects a case where knowledge governance of information about the natural environment matters, and traces how it is organized in this case.		
	References: Anastasiias Paper Yanhua Shis thesis Ge, Lan, and Christopher A Brewster. 2016. "Informational Institutions in the Agrifood Sector: Meta-Information and Meta-Governance of Environmental Sustainability." <i>Current Opinion in Environmental Sustainability</i> , 18: 73–81.		
	Prerequisites (methods / theories / content): Institutional economics, case study methods		
	Advantageous / to learn (methods / theories / content):		

Topic PE.02	Title: Barriers in local environmental policies	Pot. Supervisor: Hagen / Eisenack	Related topics (builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Many decisions on environmental policies or policies related to the environment are made on the local level (depending on the country, e.g. waste charges, development approval, public transport). Sometimes, such decisions are hampered by local political conflicts or rent-seeking. The thesis selects on such decisions and explores how the theory of contests can capture the related conflicts. The thesis could also select data on a selected policy decisions (possibly in a selected geographical area) to estimate an econometric model that explains conflict dimensions or their outcomes.		
	References: Graichen, P. R., Requate, T., & Dijkstra, B. R. (2001). How to win the political contest: A monopolist vs. environmentalists. <i>Public Choice</i> , 108(3), 273-293.		
	Prerequisites (methods / theories / content): Game theory, environmental and resource economics		
	Advantageous / to learn (methods / theories / content): Inferential statistics / econometrics		

Topic PE.03	Title: Unterleuten	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	<p>Description: Worldwide, there are increasingly land-use conflicts about agricultural land which might be converted into solar farms (large scale PV power plants). This is also the case in Brandenburg. Such conflicts between farmers, farmer associations, developers and residents can play out on the local level, but also on the regional or state level.</p> <p>The thesis would collect data on operating and planned solar farms in Brandenburg, as well as the associated conflicts. The data will be analysed to identify common patterns of such conflicts, and leverage points for dealing with those conflicts.</p>		
	<p>References: Dunnett, S., Holland, R. A., Taylor, G. & Eigenbrod, F. (2022). Predicted Wind and Solar Energy Expansion has Minimal Overlap with Multiple Conservation Priorities across Global Regions. PNAS 119 (6). Farja, Y., & Maciejczak, M. (2021). Economic Implications of Agricultural Land Conversion to Solar Power Production. Energies, 14(19), 6063. Zeh, Juli. 2016. Unterleuten. München: Luchterhand Literaturverlag. Roddis, P., Roelich, K., Tran, K., Carver, S., Dallimer, M., & Ziv, G. (2020). What shapes community acceptance of large-scale solar farms? A case study of the UK’s first ‘nationally significant’ solar farm. Solar Energy, 209.</p>		
	<p>Prerequisites (methods / theories / content): Environmental and resource economics, qualitative data analysis or inferential statistics</p>		
	<p>Advantageous / to learn (methods / theories / content): Game theory, access to Brandenburg, background knowledge on agriculture / PV.</p>		

Topic KC.03	Title: Participatory Game Design	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Develop, test and evaluate a workshop protocol for participatory game design on local sustainability issues. Participatory game design is a novel approach to transdisciplinary research where stakeholders and scientists co-develop simple boardgame.		
	References: Eisenack, Klaus (2013): A Climate Change Board Game for Interdisciplinary Communication and Education. In: Simulation & Gaming, 44 (2-3), 328–348. Eisenack, Klaus, and Anja Wirsing. 2019. "Spielend in die Utopie." In Möglichkeitenwissenschaften. Ökonomie mit Möglichkeitssinn, edited by Lars Hochmann, Silja Graupe, Thomas Korbun, Stephan Panther, and Uwe Schneidewind, 617–37. Marburg: Metropolis Verlag. Lankford, Bruce A., and Joanne Craven. 2020. "Rapid Games Designing; Constructing a Dynamic Metaphor to Explore Complex Systems and Abstract Concepts." Sustainability 12 (17): 7200.		
	Prerequisites (methods / theories / content): Facilitation skills; experience with board games; knowledge of environmental/resource problems		
	Advantageous / to learn (methods / theories / content): Institutional Analysis and Development Framework; background knowledge on transdisciplinarity		

Topic KC.02	Title: Communication international climate politics with the simulation game <i>KEEP COOL mobil</i>	Pot. Supervisor: Eisenack	Related topics (builds on / in parallel):
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Investigate game dynamics and study the potential for education for sustainable development using descriptive and inferential statistics on game behavior and survey data.		
	References: Eisenack, Klaus (2013): A Climate Change Board Game for Interdisciplinary Communication and Education . In: Simulation & Gaming, 44 (2-3), 328–348. Meya, J.N., Eisenack, K. (2017): Effectiveness of gaming for communicating and teaching climate change. <i>THESys Discussion Paper No. 2017-3</i> . Humboldt-Universität zu Berlin, Berlin, Germany. https://edoc.hu-berlin.de/series/thesysdiscpapers Mendler de Suarez, J.; Suarez, P.; Bachofen, C.; Fortugno, N.; Goentzel, J.; Gonçalves, P.; Grist, N.; Macklin, C.; Pfeifer, K.; Schweizer, S.; van Aalst, M.; Virji, H. (2012): Games for a New Climate: Experiencing the Complexity of Future Risks , Technical report, The Frederick S. Pardee Center for the Study of the Longer-Range Future, Boston University , Boston (MA, USA). Wu, J. S.; Lee, J. J.(2015): Climate change games as tools for education and engagement. <i>Nature Climate Change</i> , 5, 413–418.		
	Prerequisites (methods / theories / content): Descriptive statistics; interest in simulation games		
	Advantageous / to learn (methods / theories / content): Simulation game, quantitative social research, econometrics, programming in R/ MS Excel		

Topic A.08	Title: Exploring Urban Climate Action	Pot. Supervisor: Roggero, Gotgelf, Eisenack	Related topics (builds on / in parallel): A. 09, A.10
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Cities have taken the lead in the fight against climate change, and have done so in a remarkably cooperative and networked way. Yet, little is known at present concerning both their motivation to do so and the effectiveness of this networked approach. The thesis will explore available datasets and shed light on the drivers that determine participation and ambition in climate action in a polycentric setting.		
	References: Hughes, S., Chu, E. K., & Mason, S. G. (Eds.). (2017). Climate change in cities: Innovations in multi-level governance. Springer. Reckien et al. (2018) How are cities planning to respond to climate change? Assessment of local climate plans from 885 cities in the EU-28. Journal of Cleaner Production 191, pp.: 207-2019.		
	Prerequisites (methods / theories / content): Institutional analysis.		
	Advantageous / to learn (methods / theories / content): Basics of climate policy. Basics of comparative analysis. QCA. R..		

Topic A.09	Title: Urban Climate Action and National Policies	Pot. Supervisor: Roggero, Gotgelf	Related topics (builds on / in parallel): A. 08, A.10
<input type="checkbox"/> open <input type="checkbox"/> stored <input type="checkbox"/> closed	Description: Cities have taken the lead in the fight against climate change. National governments, instead, have long lagged behind and are arguably moving towards policies potentially hampering urban climate action. How exposed are urban climate strategies to counterproductive and/or poorly coordinated national policies?		
	References: Hughes, S., Chu, E. K., & Mason, S. G. (Eds.). (2017). Climate change in cities: Innovations in multi-level governance. Springer. O'Neill, B. C., Kriegler, E., Ebi, K. L., Kemp-Benedict, E., Riahi, K., Rothman, D. S., ... & Levy, M. (2017). The roads ahead: narratives for shared socioeconomic pathways describing world futures in the 21st century. Global Environmental Change, 42, 169-180.		
	Prerequisites (methods / theories / content): Institutional analysis.		
	Advantageous / to learn (methods / theories / content): Basics of climate policy. Basics of social research methods (interviews, case-studies).		