



### Master thesis - Current list of topics

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

| Topic   | Title:   | Pot. Supervisor:   | Related topics             |
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| W.02  | The Governance of Flash Floods in Berlin   | Eisenack / Roggero | (builds on / in parallel): |
| <input type="checkbox"/> open<br><input type="checkbox"/> stored<br><input type="checkbox"/> closed | <b>Description:</b><br>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.   |                    |                            |
|   | <b>References:</b><br><a href="https://www.cliwac.de/">https://www.cliwac.de/</a><br>Bisaro, A., & Hinkel, J. (2016). Governance of social dilemmas in climate change adaptation. <i>Nature Climate Change</i> , 6, 354–359.<br>Hinkel, J., & Bisaro, A. (2016). Methodological choices in solution-oriented adaptation research: A diagnostic framework. <i>Regional Environmental Change</i> , 16, 7–20.<br>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.<br><a href="https://doi.org/10.1017/S1744137417000376">https://doi.org/10.1017/S1744137417000376</a> |                    |                            |
|   | <b>Prerequisites (methods / theories / content):</b><br>IAD  |                    |                            |
|   | <b>Advantageous / to learn (methods / theories / content):</b><br>Qualitative social research skills, institutional analysis, good command of German (analysis of policy documents and interviews with decision-makers).   |                    |                            |

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

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| <b>Topic</b><br>P.02  | <b>Title:</b><br>City climate games  | <b>Pot. Supervisor:</b><br>Eisenack | <b>Related topics</b><br>(builds on / in parallel): |
| <input type="checkbox"/> open<br><input type="checkbox"/> stored<br><input type="checkbox"/> closed | <b>Description:</b><br>Develop a game theoretic model that sheds light on urban climate action and global climate cooperation among cities.  |                                     |   |
|   | <b>References:</b><br>Andonova, Liliana 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.<br>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 <a href="https://www.econstor.eu/bitstream/10419/148222/1/846907933.pdf">https://www.econstor.eu/bitstream/10419/148222/1/846907933.pdf</a> )<br>Different earlier master theses on similar topics. |                                     |   |
|   | <b>Prerequisites (methods / theories / content):</b><br>Game theory, environment and resource economics  |                                     |   |
|   | <b>Advantageous / to learn (methods / theories / content):</b><br>Urban geography, economy, or related   |                                     |   |

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| <b>Topic</b><br>P.07  | <b>Title:</b><br>Case study of urban climate action in the city of xxx   | <b>Pot. Supervisor:</b><br>Eisenack | <b>Related topics</b><br>(builds on / in parallel):<br>multiple P.07 |
| <input type="checkbox"/> open<br><input type="checkbox"/> stored<br><input type="checkbox"/> closed | <b>Description:</b><br>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.  |                                     |  |
|   | <b>References:</b><br>Andonova, Liliana 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.<br>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.” <i>Journal of Cleaner Production</i> 191: 207–19. |                                     |  |
|   | <b>Prerequisites (methods / theories / content):</b><br>Empirical social science, field access to selected city  |                                     |  |
|   | <b>Advantageous / to learn (methods / theories / content):</b><br>Case study methods, process tracing  |                                     |  |

| Topic<br>P.09   | Title:<br>XYZ as a driver of sub-national climate action  | Pot. Supervisor:<br>Eisenack | Related topics<br>(builds on / in parallel):<br>P.07, multiple P.09 |
|---|---|------------------------------|---|
| <input type="checkbox"/> open<br><input type="checkbox"/> stored<br><input type="checkbox"/> closed | <p><b>Description:</b><br/> Choose one potential set of drivers (XYZ), e.g. out of the following, and analyze whether it can explain urban climate action:</p> <ul style="list-style-type: none"> <li>• Co-benefits</li> <li>• Vulnerability</li> <li>• Political economy incentives</li> <li>• National policies</li> <li>• Learning in transnational networks</li> </ul> <p>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,</p> |                              |   |
|   | <p><b>References:</b><br/> Andonova, Liliana 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.</p>  |                              |   |
|   | <p><b>Prerequisites (methods / theories / content):</b><br/> Environmental and resource economics</p>   |                              |   |
|   | <p><b>Advantageous / to learn (methods / theories / content):</b><br/> Appropriate methods (see Description).</p>   |                              |   |

| Topic<br>PE.02  | Title:<br>Barriers in local environmental policies  | Pot. Supervisor:<br>Hagen / Eisenack | Related topics<br>(builds on / in parallel): |
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| <input type="checkbox"/> open<br><input type="checkbox"/> stored<br><input type="checkbox"/> closed   | <b>Description:</b><br><p>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.</p> <p>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.</p> |                                      |  |
| <b>References:</b><br>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. |   |                                      |  |
| <b>Prerequisites (methods / theories / content):</b><br>Game theory, environmental and resource economics   |   |                                      |  |
| <b>Advantageous / to learn (methods / theories / content):</b><br>Inferential statistics / econometrics   |   |                                      |  |

| Topic<br>PE.03   | Title:<br>Unterleuten   | Pot. Supervisor:<br>Eisenack | Related topics<br>(builds on / in parallel): |
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| <input type="checkbox"/> open<br><input type="checkbox"/> stored<br><input type="checkbox"/> closed  | <b>Description:</b><br><p>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> |                              |  |
| <b>References:</b><br>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. <i>PNAS</i> 119 (6).<br>Farja, Y., & Maciejczak, M. (2021). Economic Implications of Agricultural Land Conversion to Solar Power Production. <i>Energies</i> , 14(19), 6063.<br>Zeh, Juli. 2016. Unterleuten. München: Luchterhand Literaturverlag.<br>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. <i>Solar Energy</i> , 209. |   |                              |  |
| <b>Prerequisites (methods / theories / content):</b><br>Environmental and resource economics, qualitative data analysis or inferential statistics  |   |                              |  |
| <b>Advantageous / to learn (methods / theories / content):</b><br>Game theory, access to Brandenburg, background knowledge on agriculture / PV.  |   |                              |  |

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| <b>Topic</b><br>KC.03   | <b>Title:</b><br>Participatory Game Design and Transdisciplinary Method  | <b>Pot. Supervisor:</b><br>Eisenack | <b>Related topics</b><br>(builds on / in parallel):<br>W.01, W.02, KC.02 |
| <input checked="" type="checkbox"/> X<br>open<br><input type="checkbox"/><br>stored<br><input type="checkbox"/><br>closed | <b>Description:</b><br>Develop, test and evaluate a workshop protocol for participatory game design on local sustainability issues.<br>Participatory game design is a novel approach to transdisciplinary research where stakeholders and scientists co-develop simple boardgame.  |                                     |  |
|   | <b>References:</b><br>Eisenack, Klaus (2013): A Climate Change Board Game for Interdisciplinary Communication and Education. In: Simulation & Gaming, 44 (2-3), 328–348.<br><a href="#">Eisenack, Klaus, and Anja Wirsing. 2019. "Spielend in die Utopie." In <u>Möglichkeitenwissenschaften. Ökonomie mit Möglichkeitssinn</u>, edited by Lars Hochmann, Silja Graupe, Thomas Korbun, Stephan Panther, and Uwe Schneidewind, 617–37. Marburg: Metropolis Verlag.</a><br>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. |                                     |  |
|   | <b>Prerequisites (methods / theories / content):</b><br>Facilitation skills; experience with board games; knowledge of environmental/resource problems; knowledge on transdisciplinarity   |                                     |  |
|   | <b>Advantageous / to learn (methods / theories / content):</b><br>Institutional Analysis and Development Framework   |                                     |  |

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| <b>Topic</b><br>A.09  | <b>Title:</b><br>Urban Climate Action and National Policies   | <b>Pot. Supervisor:</b><br>Roggero | <b>Related topics</b><br>(builds on / in parallel):<br>A. 08, A.10 |
| <input type="checkbox"/> open<br><input type="checkbox"/><br>stored<br><input type="checkbox"/><br>closed | <b>Description:</b><br>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?   |                                    |  |
|   | <b>References:</b><br>Hughes, S., Chu, E. K., & Mason, S. G. (Eds.). (2017). Climate change in cities: Innovations in multi-level governance. Springer.<br>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. |                                    |  |
|   | <b>Prerequisites (methods / theories / content):</b><br>Institutional analysis.   |                                    |  |
|   | <b>Advantageous / to learn (methods / theories / content):</b><br>Basics of climate policy.<br>Basics of social research methods (interviews, case-studies).  |                                    |  |