HUMBOLDT-UNIVERSITÄT ZU BERLIN

FACULTY OF LIFE SCIENCES

Albrecht Daniel Thaer-Institute | Resource Economics Group | Prof. Dr. Klaus Eisenack

14.06.2021

Master thesis - Current list of topics

Topic P.02	Title: City climate games		Pot. Supervisor: Eisenack	Related topics (builds on / in parallel):
☐ open ☐ stored ☐ closed	**Description**: Develop a game theoretic model that sheds light on urban climate action and global climate cooperation among cities.			
	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. 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. (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):
☐ open ☐ stored ☐ 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
☐ open ☐ stored ☐ 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
☐ open ☐ stored ☐ closed	**Description**: Choose one potential set of drivers (XYZ), e.g. out of the following, and analyze whether it can explain urban climate action: • 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): //
☐ open ☐ stored ☐ 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:		
	Prerequisites (methods / theories / content): Institutional economics, case study methods		
	Advantageous / to learn (methods / theories / content):		

Topic	Title:	Pot. Supervisor:	Related topics
KC.02	Communication international climate politics with the simulation game *KEEP COOL mobil*	Eisenack	(builds on / in parallel):
☐ open ☐ stored ☐ 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. *THESys Discussion Paper No. 2017-3*. 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. *Nature Climate Change*, 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
☐ open ☐ stored ☐ 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
☐ open ☐ stored ☐ 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).		