

Winter term 2019/2020

University of Cologne
Faculty of Management, Economics and Social Sciences
Cologne Center for Comparative Politics (CCCP)
Chair of International Comparative Political Economy and Economic Sociology

Seminar Vergleichende Politische Ökonomie:

Public Policy Analysis: Energy, Climate and the Environment

ECTS points: 4 (alte Prüfungsordnung) / 6 (neue Prüfungsordnung)

When: Thursdays, 12:00 – 15:30

Room: 211 IBW, Seminarraum 3.40

Lecturer: Dennis Abel

E-Mail: abel@wiso.uni-koeln.de

Tel.: 0221 / 470-8812

Office hours: By appointment only

Course summary

This mid-term course offers an introduction to data analysis based on energy and climate policy. Each week we will have a double session consisting of an introduction to climate and energy governance (90 minutes) in conjunction with a “lab session” on data analysis in R (90 minutes).

The course introduces general approaches and concepts of environmental policy analysis. The protection of the population against environmental hazards and the mitigation of climate change have emerged as a core task of government policy. We will investigate the decision-making processes in crucial environmental subfields such as climate change mitigation and renewable energy policy.

In the first part of the course, the students will study the single components of environmental policies and regulatory styles. In addition, we will debate different modes and types of climate governance and explore measurements of “good” governance. In the second part of the course, we will focus on the analysis of renewable energy policymaking. We will explore the technological transition literature and study drivers and barriers for renewable energy in the European Union. A final session will be dedicated to the study of change and convergence of renewable energy policies.

The “lab sessions” cover an introduction on hands-on quantitative data analysis with R. No prior knowledge of statistics is expected or required.

At the end of October 2019 we will have a (voluntary) field trip to the Secretariat of the United Nations Framework Convention on Climate Change in Bonn.

Registration

Students have to register via KLIPS2.

Deadline for the exam registration: **October 28, 2019**

Course requirements and examination

All participants are expected to:

- attend the seminar on a regular basis
- self-study the obligatory readings according to schedule
- actively contribute to class discussions
- give a 10 to 15 minutes presentation in the seminar

The examination consists of three parts:

1. A short presentation (10-15 minutes) of the term paper's research design.

The presentation will be graded as either "pass" or "fail".

2. A written term paper. Depending on the "Prüfungsordnung", participants are expected to write

- 2500 words (alte Prüfungsordnung - 4 ECTS) /
- 3500 words (neue Prüfungsordnung - 6 ECTS).

Participants must "pass" the presentation as well as the term paper in order to successfully complete the course.

The written examination accounts for 100% of the final grade. The term paper will be graded based on the assessment criteria for term papers as published on our web page

([http://www.cccp.uni-](http://www.cccp.uni-koeln.de/sites/cccp/Lehre/Assessment_criteria_for_research_papers_and_final_thesis.pdf)

[koeln.de/sites/cccp/Lehre/Assessment_criteria_for_research_papers_and_final_thesis.pdf](http://www.cccp.uni-koeln.de/sites/cccp/Lehre/Assessment_criteria_for_research_papers_and_final_thesis.pdf)).

Points given for the term paper will be converted to the final grade as follows:

Points	Grade
100-95	1,0
94-90	1,3
89-85	1,7
84-80	2,0
79-75	2,3
74-70	2,7
69-65	3,0
64-60	3,3
59-55	3,7
54-50	4,0
49-0	5,0

3. Bonus work: Most sessions are accompanied by optional "data challenges". The deadline for submission of this bonus work is Wednesday midday before the upcoming session. A student receives one bonus point for each assignment. A maximum of five bonus points can be added to the final grade.

The term paper must be submitted as electronic version via email to abel@wiso.uni-koeln.de. The print version should be personally handed in at the administration office of the Cologne Center for Comparative Politics (IBW Gebäude, Herbert-Lewin-Str. 2, 1st floor, Room 1.09).

Deadline for submitting the term paper: **December 16, 2019 - 6pm.**

Students should consult the information on writing a term paper and plagiarism on our web page:

http://www.cccp.uni-koeln.de/sites/cccp/Lehre/Information_on_how_to_write_a_term_paper_or_thesis.pdf

The term paper must include the following signed statement:

<http://www.cccp.uni-koeln.de/sites/cccp/Lehre/EidesstattlicheErklaerung.pdf>

We would like to point out that term papers submitted in this context will be checked anonymously for plagiarism with the software Turnitin.

Literature recommendations

For the data analysis part, I recommend the following introductions:

Field, A. (2016). *An Adventure in Statistics. The Reality Enigma*. London: Sage.

Field, A. & Miles, J. (2012). *Discovering Statistics Using R*. London: Sage.

Wickham, H., & Grolemund, G. (2017). *R for Data Science*. London: O'Reilly.

Schedule

(Mandatory readings in **bold**.)

1. Session (10.10.2019)

Introduction to climate policy

Introduction of the course. Administrative matters. Key aspects: What are policies (components, dimensions and typologies), brief introduction on policy process & governance principles and the environment as a policy problem.

Literature: **Bernauer 2013**; Biermann et al. 2012; Carter 2007: 173-206; Knill & Tosun 2012: 1-39; Van de Graaf et al. 2016: 3-44.

Data lab I

Introduction to statistics and the R environment.

Literature: **Field & Miles 2012: 1-61**.

2. Session (17.10.2019)

Governance perspectives on climate and energy policy

Modes of governance (hierarchy, markets, networks), typologies (varieties of capitalism, developmental / regulatory / green entrepreneurial state), what is “good” governance?

Literature: Bernauer & Böhmelt 2013; Fukuyama 2016; Knill & Tosun 2012: 199-221; **Selin & VanDeveer 2012: 341-368**; Van de Graaf & Zelli 2016: 47-72.

Data lab II

Data visualization with the ggplot2 package.

Literature: **Field & Miles 2012: 116-165**.

3. Session (24.10.2019)

Instrument choice for climate policy

Introduction to regulatory styles and environmental policy instruments (command-and-control, market-based, voluntary agreements etc.), carbon taxes and emissions trading, case: EU ETS

Literature: Carter 2007: 321-352; Lachapelle & Paterson 2013; Schaffrin, Sewerin & Seubert 2014; Fankhauser, Gennaioli & Collins 2015; Le Quéré et al. 2019; **Skovgaard, Sacks Ferrari & Knaggard 2019**.

Data lab III

Exploring assumptions.

Literature: **Field & Miles 2012: 166-204**.

4. Session (30.10.2019)

FIELD TRIP TO THE SECRETARIAT OF THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

Briefing on recent developments after the UN Climate Action Summit in September 2019 and before the Conference of the Parties (COP25) in December 2019.

Literature: Falker 2016: 1107-1125; Karlsson-Vinkhuyzen 2016: 115-138; **Kuyper, Schroeder & Linnér 2018**: 343-368; Underdal 2017.

5. Session (07.11.2019)

Renewable energy and technological innovation

Technology transition, green industrial policy, price- and quantity-based approaches for RES-E support, diffusion of instruments.

Literature: Geels 2002; **Kern & Markard 2016**: 291-318; Schaffer & Bernauer 2014: 15-27; Sovacool 2017.

Data lab IV

Correlation.

Literature: **Field & Miles 2012**: 205-244.

6. Session (14.11.2019)

Case study: Renewable energy support schemes in the EU multi-level system

Literature: Anderson, Böhmelt & Ward 2017; Solorio & Jörgens 2017: 3-44; Solorio, Öller & Jörgens 2014; **Strunz, Gawel & Lehmann 2016**; Tews 2015.

Data lab V

Linear regression.

Literature: **Field & Miles 2012**: 245-311.

7. Session (21.11.2019)

Measuring change and convergence of renewable energy policies

Dimensions of policy change (density and intensity), rent-seeking, regulatory capture, policy learning, path-dependency, diffusion.

Literature: Holzinger, Knill & Sommerer 2014: 39-63; **Kitzing, Mitchell & Morthorst 2012**; Knill & Tosun 2012: 250-279; Schmidt & Sewerin 2019; Strunz, Gawel, Lehmann & Söderholm 2018.

Data lab VI

Logistic regression.

Literature: **Field & Miles 2012**: 312-311.

8. Session (28.11.2019)

Final session

Wrap up of the course. Presentation of research designs.

Data lab VII

Comparing two means.

Literature: **Field & Miles 2012: 359-397.**

Course literature

- Anderson, B., Böhmelt, T., & Ward, H. (2017). Public opinion and environmental policy output: a cross-national analysis of energy policy in Europe. *Environmental Research Letters*, 12(11), 1-10.
- Bernauer, T. (2013). Climate Change Politics. *ARPS*, 16, 421-448.
- Bernauer, T., & Böhmelt, T. (2013). National climate policies in international comparison: The Climate Change Cooperation Index. *Environmental Science & Policy*, 25, 196-206.
- Biermann, F. et al. (2012). Navigating the Anthropocene: Improving Earth System Governance. *Science*, 335(6074), 1306-1307.
- Carter, N. (2007). *The Politics of the Environment*. Cambridge: Cambridge University Press.
- Falker, R. (2016). The Paris Agreement and the new logic of international climate politics. *International Affairs*, 92(5), 1107-1125.
- Fankhauser, S., Gennaioli, C. & Collins, M. (2015). The political economy of passing climate change legislation: Evidence from a survey. *Global Environmental Change*, 35, 52-61.
- Field, A. & Miles, J. (2012). *Discovering Statistics Using R*. London: Sage.
- Fukuyama, F. (2016). Governance: What Do We Know, and How Do We Know It? *Annual Review of Political Science*, 19, 89-105.
- Geels, F.W. (2002). Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study. *Research Policy*, 31(8-9), 1257-1274.
- Holzinger, K., Knill, C., & Sommerer, T. (2014). Is there convergence of national environmental policies? An analysis of policy outputs in 24 OECD countries. In Jörgens, H., Lenschow, A., & Liefferink, D. (Eds.), *Understanding Environmental Policy Convergence* (pp. 39-63). Cambridge: Cambridge University Press.
- Karlsson-Vinkhuyzen, S.I. (2016). The UN, Energy and the Sustainable Development Goals. In Van de Graaf, T., Sovacool, B.K., Ghosh, A., Kern, F., & Klare, M.T. (Eds.), *The Palgrave Handbook of the International Political Economy of Energy* (pp. 115-138). New York: Palgrave Macmillan.
- Kern, F., & Markard, J. (2016). Analysing Energy Transitions: Combining Insights from Transition Studies and International Political Economy. In Van de Graaf, T., Sovacool, B.K., Ghosh, A., Kern, F., & Klare, M.T. (Eds.), *The Palgrave Handbook of the International Political Economy of Energy* (pp. 291-318). New York: Palgrave Macmillan.
- Kitzing, L., Mitchell, C., & Morthorst, P.E. (2012) Renewable energy policies in Europe: Converging or diverging?. *Energy Policy*, 51, 192-201.
- Knill, C., & Tosun, J. (2012). *Public Policy. A New Introduction*. London – New York: Palgrave Macmillan.
- Kuyper, J., Schroeder, H., & Linnér, B.-O. (2018). The Evolution of the UNFCCC. *Annual Review of Environment and Resources*, 43, 343-368.
- Lachapelle, E. & Paterson, M. (2013). Drivers of national climate policy. *Climate Policy*, 13(5), 547-571.
- Le Quéré et al. (2019). Drivers of declining CO2 emissions in 18 developed countries. *Nature Climate Change*, 9, 213-217.

- Schaffer, L. M. & Bernauer, T. (2014). Explaining government choices for promoting renewable energy. *Energy Policy*, 68, 15-27.
- Schaffrin, A., Sewerin, S., & Seubert, S. (2014). The innovativeness of national policy portfolios climate policy change in Austria, Germany, and the UK. *Environmental Politics*, 23(5), 860-883.
- Schmidt, T.S., & Sewerin, S. (2019). Measuring the temporal dynamics of policy mixes – An empirical analysis of renewable energy policy mixes' balance and design features in nine countries. *Research Policy*, (Online first).
- Selin, H., & VanDeveer, S.D. (2012). Federalism, Multilevel Governance, and Climate Change Politics across the Atlantic. In Steinberg, P.F., & VanDeveer S.D. (Eds.), *Comparative Environmental Politics* (pp. 341-368). Cambridge, MA: The MIT Press.
- Skovgaard, J., Sacks Ferrari, S. & Knaggard, A. (2019). Mapping and clustering the adoption of carbon pricing policies: what polities price carbon and why?. *Climate Policy*, 19(9), 1173-1185.
- Solorio, I., & Jörgens, H. (2017). *A Guide to EU Renewable Energy Policy: Comparing Europeanization and Domestic Policy Change in EU Member States*. Cheltenham: Edward Elgar Pub.
- Solorio, I., Öller, E. & Jörgens, H. (2014). The German Energy Transition in the Context of the EU Renewable Energy Policy. In Brunnengräber, A. & Di Nucci, M.R. (Eds.), *Im Hürdenlauf zur Energiewende* (pp. 189-200). Wiesbaden: Springer VS.
- Sovacool, B.K. (2017). The History and Politics of Energy Transitions. In Arent, D., Arndt, C., Miller, M., Tarp, F. & Zinaman, O. (Eds.), *The Political Economy of Clean Energy Transitions* (pp. 1-22). Oxford: Oxford University Press.
- Strunz, S., Gawel, E., Lehmann, P. & Söderholm, P. (2018). Policy convergence as a multifaceted concept: the case of renewable energy policies in the European Union. *Journal of Public Policy*, 38(3), 361-387.
- Strunz, S., Gawel, E. & Lehmann, P. (2016). The political economy of renewable energy policies in Germany and the EU. *Utilities Policy*, 42, 33-41.
- Tews, K. (2015). Europeanization of Energy and Climate Policy: The Struggle Between Competing Ideas of Coordinated Energy Transitions. *The Journal of Environment & Development*, 24(3), 267-291.
- Underdal, A. (2017). Climate Change and International Relations (After Kyoto). *Annual Review of Political Science*, 20, 169-188.
- Van de Graaf, T., Sovacool, B.K., Ghosh, A., Kern. F., & Klare, M.T. (2016). States, Markets, and Institutions: Integrating International Political Economy and Global Energy Politics. In Van de Graaf, T., Sovacool, B.K., Ghosh, A., Kern. F., & Klare, M.T. (Eds.), *The Palgrave Handbook of the International Political Economy of Energy* (pp. 3-44). New York: Palgrave Macmillan.
- Van de Graaf, T., & Zelli, F. (2016). Actors, Institutions and Frames in Global Energy Politics. In Van de Graaf, T., Sovacool, B.K., Ghosh, A., Kern. F., & Klare, M.T. (Eds.), *The Palgrave Handbook of the International Political Economy of Energy* (pp. 47-72). New York: Palgrave Macmillan.