

The Economics of Natural Resources

Institut für Volkswirtschaftslehre
Winter Semester 2026-2027



Introduction

Understanding the natural world we live in is central to tackling major environmental challenges such as climate change. Economic perspectives, in particular, shed light on how natural resources can be managed more sustainably. This seminar will cover both long-standing and current topics in natural resource economics, with a focus on the socio-economic roles of natural resources through empirical papers spanning different regions worldwide. The seminar will then extend the discussion to the intervention frontier by examining the effectiveness of environmental regulation and global cooperation. Beyond building subject-matter knowledge, the seminar will train students to conduct independent, original economic research through scientific paper evaluation, original data analysis, and presentation of findings.

Prerequisites

Basic knowledge of microeconomics and macroeconomics is required. Prior exposure to public, environmental, or development economics is helpful. Knowledge of statistics and econometrics is essential to understanding the empirical literature.

Requirements

The following are required from seminar participants:

- Attendance at the kick-off meeting
- At least one consultation meeting with the instructor
- Seminar presentation (20-minute presentation and 10-minute discussion)
- Active participation and contribution to other presentations
- Submission of the term paper (10-12 pages)

Each seminar topic (see below) is accompanied by a list of suggested literature, with each paper addressing a different sub-topic. Students should first discuss their selected paper in detail in the term paper: What is the research question? What are the hypotheses? Which methods are used? What are the results? Building on this discussion, students should then develop an independent extension of the paper's findings. Examples include comparing the paper against more recent literature, extending the analysis to a more recent time period, replicating the results using data from a different temporal or geographic context, or deriving and discussing economic or social policy implications.

Students' research plans should be discussed with the instructor. The kick-off meeting provides information on the seminar schedule, distributes the topics, and offers guidance on how to conduct and write a research paper. The official seminar language is English. Students who prefer to present and/or write their seminar papers in German are also

welcome. The guidelines for scientific papers at the Institute of Economics can be found **here**. These formal guidelines must be strictly adhered to, as formal aspects are part of the evaluation of the term paper.

Registration

Students can register for the seminar via Stud.IP from 21.09.2026.

Important dates

- from 21.09.2026: Registration via Stud.IP
- 21.10.2026: Kick-off meeting and topic distribution (10:00-11:30, VWL institute)
- 22.10.2026 - 05.11.2026: Binding registration via TUCconnect
- 04.12.2026: Group consultation (13:00-15:00, VWL institute)
- 22.01.2027: Block seminar, presentation (from 10:00, VWL institute)
- 19.02.2027: Submission deadline for the term paper (until end of day, via E-mail)

Seminar topics and literature

Please note that each suggested paper within a topic can function as the foundation for the student's own research.

1. Environment and long-run development

- (a) Dalgaard, C. J., Knudsen, A. S. B., & Selaya, P. (2020). The bounty of the sea and long-run development. *Journal of Economic Growth*, 25(3), 259-295.
- (b) Heblich, S., Trew, A., & Zylberberg, Y. (2021). East-side story: Historical pollution and persistent neighborhood sorting. *Journal of Political Economy*, 129(5), 1508-1552.
- (c) Waldinger, M. (2022). The economic effects of long-term climate change: Evidence from the Little Ice Age. *Journal of Political Economy*, 130(9), 2275-2314.

2. Natural resource shocks and crime

- (a) Flückiger, M., & Ludwig, M. (2015). Economic shocks in the fisheries sector and maritime piracy. *Journal of Development Economics*, 114, 107-125.
- (b) Sánchez de la Sierra, R. (2020). On the origins of the state: Stationary bandits and taxation in eastern Congo. *Journal of Political Economy*, 128(1), 32-74.

3. Environment and child development

- (a) Maccini, S., & Yang, D. (2009). Under the weather: Health, schooling, and economic consequences of early-life rainfall. *American Economic Review*, 99(3), 1006-1026.

- (b) Adhvaryu, A., Bharadwaj, P., Fenske, J., Nyshadham, A., & Stanley, R. (2024). Dust and death: Evidence from the West African Harmattan. *The Economic Journal*, 134(659), 885-912.
- (c) Armand, A., & Kim Taveras, I. (2026). From sea to shore: The impact of ocean acidification on child health. *Journal of the European Economic Association*, 24(4), 1332-1367.

4. The social costs of species collapse

- (a) Feir, D. L., Gillezeau, R., & Jones, M. E. (2024). The slaughter of the bison and reversal of fortunes on the Great Plains. *Review of Economic Studies*, 91(3), 1634-1670.
- (b) Frank, E., & Sudarshan, A. (2024). The social costs of keystone species collapse: Evidence from the decline of vultures in India. *American Economic Review*, 114(10), 3007-3040.

5. Roads to adaptation and mitigation

- (a) Baylis, P., & Boomhower, J. (2026). Mandated versus voluntary adaptation to natural disasters: The case of US wildfires. *Journal of Political Economy*, 134(3), 895-948.
- (b) Hsiao, A. (2026). Coordination and commitment in international climate action: Evidence from palm oil. *Econometrica*, 94(1), 1-33.

Seminar Organization

Hanh My Le
 Institut für Volkswirtschaftslehre
 Spielmannstr. 9
 38106 Braunschweig
 hanh-my.le@tu-braunschweig.de