

THE UNIVERSITY OF TEXAS AT DALLAS School of Economic, Political and Policy Sciences

Course syllabus

IPEC 3349 - World Resources and Development

Fall 2024

August 2024 (subject to updates)

Course overview

Course number: IPEC 3349

Course title: World Resources and Development

Professor: Elías Cisneros Term: Fall 2024

Meetings: Mondays and Wednesdays, 11:30 am – 12:45 pm, FO 2.208

Contact information

Instructor: Dr. Elías Cisneros Teaching Assistant: Sonali Singh

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Office hours: Monday, 1–3 pm (in exceptional Office hours: Wednesday, 1–3 pm

cases online - appointments via

email)

1 General course information

Pre-requisites: No prerequisites

Course description: This course provides an analysis of resource mobilization and economic development from a multidisciplinary perspective, with a primary focus on the challenges faced by less-developed countries. The course explores various topics, including technology transfer, education policy, population growth, health policy, as well as the role of natural resources and the environment in economic development.

Learning outcomes and objectives

- 1. Students will learn to assess the role of global resource issues in economic development.
- 2. Students will learn to develop analytical and research skills to critically evaluate empirical papers and draw meaningful conclusions from the findings.
- 3. Students will foster their ability to synthesize information, analyze complex problems, and formulate evidence-based arguments related to world resources and development.
- 4. Students will be able to demonstrate critical thinking by developing a research question and writing a term paper.

5. Students will learn to effectively communicate and present a research plan, strategy, and results in public.

Texts & materials

- Essential reading and material:
 - Main textbook (marked with "*")
 - *Perkins, D. H., S. Radelet, D. L. Lindauer, and S. A. Block (2012): *Economics of Development*. W. W. Norton & Company, Inc., 7th edition. ISBN 978-0393123524
 - Some additional book chapters
 - *Todaro, M. P. and S. C. Smith (2014): $Economic\ Development$. Pearson, 12th edition. ISBN 978-0133406788
 - *Perman, R., Y. Ma, J. McGilvray, and M. Common (2011): *Natural resource and environmental economics*, volume Pearson Education Limited. Addison Wesley Longman, 4th edition
 - Papers marked with *
 - All material used during class, e.g., lecture slides

2 Course grading

- 1. Participation (20%): Students are expected to actively participate in class each week. Students are expected to come to class prepared and have carefully read the assignments. Further, students are expected to attend every class session, and they will participate actively in the discussions during class. Students will have the option of (a) commenting on the readings or opting into (b) cold-calling.
 - (a) Commenting Track: Each student must select four class sessions during the semester in which they will write a paragraph and submit at least two discussion questions on eLearning based on the readings for that class. Each commentary is worth $\frac{1}{4}$ of the participation grade. An online document will be circulated after the second class to sign up for the sessions in which they will submit their discussion questions. Students must submit their commentary by 8 a.m. on the day of class.
 - (b) Cold Calling Track: Students will be called on at random during class sessions to answer questions or provide their thoughts on the topic at hand. A student who is cold-called and not present in class will lose 10% of the participation grade.
- 2. **Midterm exams (40%):** Students will take two non-cumulative exams during the semester. The exams will be on elearning. Exams contain multiple-choice questions, short-answer questions, and essay questions. This assignment does not allow Generative AI tools (see course policies below).
- 3. Main deliverable (40%): For the main deliverable, students have three options: (a) a final exam, (b) a term paper, or a (c) a case study:
 - (a) **Final exam track:** A cumulative final exam on the last day of class. The Exam will contain multiple-choice questions, short-answer questions, and essay questions. This assignment does not allow Generative AI tools (see course policies below).
 - (b) **Term paper track:** For the term paper, students will select a topic and research question (RQ) of their choice, subject to instructor approval. Each term paper will address a specific RQ and examine two to three empirical papers from the additional reading list (see section 7 below). The choice should preferably contrast different results and policy implications (e.g., within a particular region). Examples of topic areas include 'Pollution impacts on worker productivity in Indonesia' or 'Differential impacts of the increase in precipitation on the soybean sector in Brazil.'

 The term paper should be 5–10 pages in length, double space, 1 inch margin, and 12pt font,

not including the bibliography or appendix, and submitted as a PDF. It should begin with a motivational introduction and provide an overview of the topic. Students should summarize the primary literature, discuss at least one central result with relevant technical details, incorporate additional contrasting literature, discuss its implications, and draw their own conclusions. Students are encouraged to ask any questions regarding this final assignment in office hours. Generative AI tools may be used in this assignment with the written permission of the instructor (see course policies below). To aid in interpreting empirical strategies and results, I recommend self-studying the methods. Some resources are:

- Introductory videos: (a) Linear Regression: Correlation and Causation, (b)How to interpret Regression Tables, (c) Instrumental Variables, (d) Regression Discontinuity (at least videos 1–3), (e) Difference in Difference.
- Book for beginners: Huntington-Klein, N. (2021): The Effect: An Introduction to Research Design and Causality, volume 1. New York: Chapman and Hall/CRC. ISBN 9781003226055, available online: https://theeffectbook.net/.
- Another general introduction: Khandker, S. R., G. B. Koolwal, and H. A. Samad (2010): Handbook on impact evaluation: quantitative methods and practices. World Bank Publications, available online: here.
- (c) Case study track: Students may conduct a case study analysis that includes an original data analysis and write a report that connects to the class topics and literature. This option requires students to discuss their potential case study during office hours for previous approval. The report must include at least two excerpts (i.e., Figures or Tables). Students must also submit their code (preferably in R) and input data for potential replication. For newcomers to R look up these resources: https://rstudio-education.github.io/hopr/starting.html. To get some ideas, please look at section 8.
- 4. **Main deliverable exception**: Students will be exempt from the main deliverable (final exam/term paper/case study) if they fulfill the following criteria:

• Commenting track:

- Have an average of an A grade in the class following Midterm exam 2
- Submitted all four commentaries by Midterm exam 2
- Submitted four additional commentaries between Midterm exam 2 and the end of class

• Cold Calling track:

- Have an average of an A grade in the class following Midterm exam 2
- Maximum of one absenteeism when called before Midterm exam 2
- Not absent when cold called before final exam

Grading scale: Your final letter grade will be determined by the percentage of points you achieve relative to the maximum number of points possible. The following scale will be used:

\mathbf{Grade}	Range	Grade	Range	Grade	Range	Grade	Range	\mathbf{Grade}	\mathbf{Range}
\overline{A} +	97-100%	B+	87-89%	C+	77-79%	D+	67-69%	F	< 60%
A	93-96%	В	83-86%	С	73-76%	D	63-66%		
A-	90- $92%$	B-	80-82%	C-	70-72%	D-	60-62%		

3 Tentative schedule

\mathbf{W}	Date	Topics	$\mid \mathbf{W} \mid$	Date	Topics
1	08/20	Introduction	9	10/15	Agriculture and institutions
	08/22	Measurement (1)		10/17	Agriculture and institutions
2	08/27	Measurement (2)	10	10/22	Midterm exam II
	08/29	Measurement (3)		10/24	Literature search; Term paper writing
3	09/03	Growth & Theories of Growth	11	10/29	Trade, Dev. and Trade Policies
	09/05	Underlying factors of growth		10/31	Trade, Dev. and Trade Policies
4	09/10	States & Markets	12	11/05	Sustainable Development
	09/12	Institutions & Corruption		11/07	Planetary Boundaries
5	09/17	Poverty	13	11/12	Climate Change and Growth
	09/19	Midterm exam I		11/14	Environmental damages and growth
6	09/24	Inequality (1)	14	11/19	Payments for Environmental Services
	09/26	Inequality (2): Local & global		11/21	Environmental cooperation
7	10/01	Education	/	11/26	Fall break
	10/03	Health		11/28	Thanksgiving
8	10/08	Agriculture and development	15	12/03	Recap
	10/10	Agriculture in the global economy		12/05	Final exam / Paper submission

4 Course outline

Entries marked with * indicate required readings.

Class 1.1: Introduction

- *Perkins et al. (2012), Ch. 1.

Class 1.2: Measurement (1) – Measuring growth

- *Perkins et al. (2012), Ch. 2.

Class 2.1: Measurement (2) – Measuring development

- *Perkins et al. (2012), Ch. 2.
- Andreoni, A., H. joon Chang, and I. Estevez (2021): The missing dimensions of the human capabilities approach: Collective and productive 33 (2): 179–205

Class 2.2: Measurement (3) – Mis-Measuring growth

- *Angrist, N., P. K. Goldberg, and D. Jolliffe (2021): Why is growth in developing countries so hard to measure? *Journal of Economic Perspectives* 35 (3): 215–242, link.
- The real problem with China's economy. (2024, September 5). The Economist. https://www.economist.com/leaders/2024/09/05/bad-information-is-a-grave-threat-to-chinas-economy

Class 3.1: Growth and Theories of Growth (1)

- *Perkins et al. (2012), Ch. 4.

Class 3.2: Growth and Theories of Growth (2)

- *Perkins et al. (2012), Ch. 3.
- Block, S. A. (2001): Does Africa grow differently? *Journal of Development Economics* 65 (2): 443–467, link.

Class 4.1: States & Markets (1)

- *Perkins et al. (2012), Ch. 5.

Class 4.2: States & Markets (2) – Institutions & Corruption

- *Bologna, J. and A. Ross (2015): Corruption and entrepreneurship: Evidence from Brazilian municipalities. *Public Choice* 165 (1): 59–77, link.
- Acemoglu, D., S. Johnson, and J. A. Robinson (2005): Chapter 6 Institutions as a Fundamental Cause of Long-Run Growth, pp. 385–472. Elsevier. ISBN 9780444520418, link.

Class 5.1: Poverty

- *Perkins et al. (2012), Ch. 6.
- Meyer, B. D. and J. X. Sullivan (2012): Identifying the disadvantaged: Official poverty, consumption poverty, and the new supplemental poverty measure. *Journal of Economic Perspectives* 26 (3): 111–136, link.

Class 5.2: Exam I

Class 6.1 Inequality (1)

- *Perkins et al. (2012), Ch. 6.

Class 6.2 Inequality (2) – Local & global inequality

- *Ravallion, M. (2014): Income inequality in the developing world. Science 344 (6186): 851–855, link.

Week 7.1: Education

- *Perkins et al. (2012), Ch. 8
- Gertler, P. J., S. W. Martinez, and M. Rubio-Codina (2012): Investing cash transfers to raise long-term living standards. *American Economic Journal: Applied Economics* 4 (1): 164–192, link.
- Li, H., P. Loyalka, S. Rozelle, and B. Wu (2017): Human capital and China's future growth. *Journal of Economic Perspectives* 31 (1): 25–48, link.
- Woessmann, L. (2016): The importance of school systems: Evidence from international differences in student achievement. *Journal of Economic Perspectives* 30 (3): 3–32, link.

Class 7.2: Health

- *Perkins et al. (2012), Ch. 9.
- Banerjee, A. V., E. Duflo, R. Glennerster, and D. Kothari (2010): Improving immunisation coverage in rural India: Clustered randomised controlled evaluation of immunisation campaigns with and without incentives. *BMJ* 340 (may17 1): c2220–c2220, link.

Class 8.1: Agriculture & Development (1)

- *Perkins et al. (2012), Ch. 16.

Class 8.2: Agriculture & Development (2)

- *Alston, J. M. and P. G. Pardey (2014): Agriculture in the global economy. *Journal of Economic Perspectives* 28 (1): 121–146, link.

Class 9.1: Agriculture & Institutions (1)

- *Perkins et al. (2012), Ch. 17.

Class 9.2: Agriculture & Institutions (2)

- *Barrows, G., S. Sexton, and D. Zilberman (2014): Agricultural biotechnology: The promise and prospects of genetically modified crops. *Journal of Economic Perspectives* 28 (1): 99–120, link.

Class 10.1: Exam II

Class 10.2: Literature search and term paper writing

Class 11.1: Trade, Development and Trade Policies (1)

- *Perkins et al. (2012), Ch. 18, 19.

Class 11.2: Trade, Development and Trade Policies (2)

- *Amiti, M., S. J. Redding, and D. E. Weinstein (2019): The impact of the 2018 tariffs on prices and welfare. *Journal of Economic Perspectives* 33 (4): 187–210 link.
- Feenstra, R. C. (2018): Alternative sources of the gains from international trade: Variety, creative destruction, and markups. *Journal of Economic Perspectives* 32 (2): 25–46, link.

Class 12.1: Sustainable Development

- *Perman et al. (2011) Ch. 2, (pdf on eLearning).
- *Perkins et al. (2012), Ch. 20.
- Dragusanu, R., D. Giovannucci, and N. Nunn (2014): The economics of fair trade. *Journal of Economic Perspectives* 28 (3): 217–236, link.

Class 12.2: Planetary Boundaries

- *Rockström, J., W. Steffen, K. Noone, Å. Persson, F. S. Chapin, E. F. Lambin, T. M. Lenton, M. Scheffer, C. Folke, H. J. Schellnhuber, B. Nykvist, C. A. D. Wit, T. Hughes, S. V. D. Leeuw, H. Rodhe, S. Sörlin, P. K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R. W. Corell, V. J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen, and J. A. Foley (2009): A safe operating space for humanity. Nature 461 (7263): 472–475, link.
- *Steffen, W., K. Richardson, J. Rockström, S. E. Cornell, I. Fetzer, E. M. Bennett, R. Biggs, S. R. Carpenter, W. de Vries, C. A. de Wit, C. Folke, D. Gerten, J. Heinke, G. M. Mace, L. M. Persson, V. Ramanathan, B. Reyers, and S. Sörlin (2015): Planetary boundaries: Guiding human development on a changing planet. *Science* 347 (6223): 736, link.
- Liang, Y., I. Rudik, and E. Zou (2021): The environmental effects of economic production: Evidence from ecological observations. NBER Working paper 29357, National Bureau of Economic Research, link.
- Liang, J. et al. (2016): Positive biodiversity-productivity relationship predominant in global forests. *Science* 354 (6309), link.

Class 13.1: Climate Change and Growth

- *Todaro and Smith (2014), Ch. 10.1., 10.2.
- *Kolstad (2011), Ch. 2 "Climate change".
- *Perkins et al. (2012), Ch. 20 Section: "Saving for a sustainable future"
- *Stern, N. and J. E. Stiglitz (2023): Climate change and growth. *Industrial and Corporate Change* 32 (2): 277–303, link.
- Auffhammer, M. (2018): Quantifying economic damages from climate change. *Journal of Economic Perspectives* 32 (4): 33–52, link.
- Stern, N. (2007): The economics of climate change: the Stern review. Cambridge University press, link.
- Tol, R. S. J. (2009): The economic effects of climate change. *Journal of Economic Perspectives* 23 (2): 29–51, link.

Class 13.2: Environmental damages and growth

- *Todaro and Smith (2014), Ch. 10.1, 10.2, 10.4.
- Zheng, S. and M. E. Kahn (2017): A new era of pollution progress in urban China? *Journal of Economic Perspectives* 31 (1): 71–92, link.

Class 14.1: Payments for environmental services

- *Wunder, S. (2015): Revisiting the concept of payments for environmental services. *Ecological Economics* 117: 234 – 243

Class 14.2: International Environmental Cooperation

- *Perman et al. (2011) Ch. 9 "International environmental problems", (pdf on eLearning).

Class 15.1: Recap and Questions

Class 15.2: Final Exam

5 Course policies

Class Materials The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Attendance The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected regardless of modality. Students who fail to attend class regularly are inviting scholastic difficulty.

Regular class participation is expected regardless of course modality. Participation includes in-person attendance, and engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Participation Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Recordings The instructor may record meetings of this course. Any recordings will be available to all students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those, not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Academic Dishonesty Policy Cheating and plagiarism will not be tolerated. I strongly encourage you to review the University's policies regarding academic honesty: UT Dallas Syllabus Policies and Procedures, Academic Dishonesty.

The emergence of generative AI tools¹ (such as ChatGPT and DALL-E) has sparked large interest among many students and researchers. The use of these tools for brainstorming ideas, exploring possible responses to questions or problems, and creative engagement with the materials may be useful for you as you craft responses to class assignments. While there is no substitute for working directly with your instructor, the potential for generative AI tools to provide automatic feedback, assistive technology and language assistance is clearly developing. Course assignments may use Generative AI tools if indicated in the syllabus. AI-generated content can only be presented as *your own work* with the instructor's *written permission*. Include an acknowledgement of how generative AI has been used after your reference or Works Cited page. TurnItIn or other methods may be used to detect the use of AI. Under UTD rules about due process, referrals may be made to the Office of Community Standards and Conduct (OCSC). Inappropriate use of AI may result in penalties, including a 0 on an assignment.

Sickness If you have been exposed, have symptoms or are positive, note that if you have a serious illness or get very sick with COVID that prevents you from attending class, you will need to consider whether you can continue in this class or others. While I will help make course materials available, you must keep up with all course deadlines and exams and you are expected to attend this class in person. I will NOT asynchronously record class for those who cannot attend — you will need to get class notes from another student. With that being said, if you must miss class due to COVID positivity or another illness for one week, this will not be overwhelmingly detrimental to your grades as long as you do not miss an exam. See notes on excused absences as well in this syllabus.

6 Resources for students

Accessibility Resource Center Accommodations: If you have a certified disability from UT Dallas OSA and are in need of accommodations for this class, please contact me ASAP via email and provide me a copy of your documentation so we may discuss how to best facilitate you in the course. It is very important for students with OSA accommodations to **give prior notice** to instructors of assessment accommodations, and I ask for a two-week notice in advance as a minimum so that I can make sure that you are fully accommodated.

¹ "Generative AI is a broad term that refers to a type of artificial intelligence (AI) application that is designed to use a variety of machine learning algorithms to create new content (text, images, video, music, artwork, synthetic data, etc.) based on user input that was not explicitly programmed into the AI application. Generative AI systems are "trained" by using complex algorithms to learn from an existing large corpus of datasets (often consisting of millions of examples) and to analyze patterns, rules and statistical structures from the sample data to be used in generating new content that is similar in style and characteristics to the original training datasets." (ASU, 2023, https://provost.asu.edu/generative-ai)

Disabilities Policy Please find the disability policy here: https://go.utdallas.edu/syllabus-policies. It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the AccessAbility Resource Center (ARC) is required. If you are eligible to receive accommodation and would like to request it for this course, please discuss it with me and allow one-week advance notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact ARC for a confidential discussion. ARC is located in the Administration Building, AD 2.224. They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu.

Sharing confidential information Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching associates/assistants and graduate/research assistants are required by UT Dallas policy to report information about sexual misconduct to the UT Dallas Title IX Coordinator. Per university policy, Sexual Misconduct Policy – UTDBP3102, faculty have been informed that they must identify the student to the UT Dallas Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2575 or the 24/7 Crisis Hotline at 972-UTD-TALK or 972-883-8255), the, a health care provider in the Student Health Center (972-883-2747), a clergyperson (or other legally recognized religious advisor) of their choice, or an off-campus resource (e.g., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or are victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UT Dallas Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-5202. Additional information and resources may be found at https://www.utdallas.edu/institutional-initiatives/title-ix/resources/.

Mental health services In addition, I am sensitive to the fact that there is great anxiety and mental health challenges that our students are facing with the ongoing changes brought upon by the current public health crisis regarding COVID-19. This is a gentle reminder that you have mental health services available to you on campus. Students who experience any distress from the sensitive class materials that are covered in this course are encouraged to seek self-care via the on-campus services provided:

Student Counseling Center Phone: 972-883-2575 Location: Student Services Building SSB 4.600 (limited physical hours—call for an appointment) If needing support or in crisis, please call 24 hours per day 972-UTD-TALK, text "Home" to 741741

The Galerstein Gender Center has compiled a short list that might help support our womxn and LGBT+ campus communities at UT Dallas during this difficult time: https://www.utdallas.edu/gendercenter/covid-19-resources/ In addition, the Galerstein Gender Center is here for all students who need help: email gendercenter@utdallas.edu if they can assist you.

Resources for student success UTD has a constellation of resources aimed at helping students. Please find them here: https://go.utdallas.edu/academic-support-resources or see the UTD Student Resource Guide 2023 on eLearning. One example is the Graduation Help Desk which supports undergraduate students, faculty and staff to develop solutions to complex academic and non-academic issues (online appointments or write to graduationhelpdesk@utdallas.edu). Have a look at the Comet Cupboard which is a UT Dallas food pantry initiative dedicated to helping students in need. Also, take notice of the Student Counselling Center (972-883-2575).

Further UT Dallas Syllabus Policies and Procedures The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.

7 Additional reading list

You can search and download the papers via JSTOR or google scholar. Make sure you have the correct paper.

Payments for environmental services

- Jayachandran, S., J. De Laat, E. F. Lambin, C. Y. Stanton, R. Audy, and N. E. Thomas (2017): Cash for carbon: A randomized trial of payments for ecosystem services to reduce deforestation. *Science* 357 (6348): 267–273, link.
- Alix-Garcia, J. M., K. R. E. Sims, and P. Yañez-Pagans (2015): Only one tree from each seed? Environmental effectiveness and poverty alleviation in Mexico's payments for ecosystem services program.
 American Economic Journal: Economic Policy 7 (4): 1–40, link.

Agriculture

- Abman, R. and C. Carney (2020): Agricultural productivity and deforestation: Evidence from input subsidies and ethnic favoritism in malawi. *Journal of Environmental Economics and Management* 103: 102,342, link.
- Diao, X., P. Hazell, and J. Thurlow (2010): The role of agriculture in African development. World Development 38 (10): 1375–1383, link.

Malaria

- Pan, Y. and S. Singhal (2019): Agricultural extension, intra-household allocation and malaria. *Journal of Development Economics* 139: 157–170
- Bauhoff, S. and J. Busch (2020): Does deforestation increase malaria prevalence? evidence from satellite data and health surveys. World Development 127: 104,734
- Kis-Katos, K. and R. Sparrow (2015): Poverty, labor markets and trade liberalization in Indonesia. Journal of Development Economics 117: 94 – 106 link.

Institutions

- Huning, T. R. and F. Wahl (2021): The fetters of inheritance? Equal partition and regional economic development. *European Economic Review* 136: 103,776, link.
- Barbier, E. B. (2020): Is green rural transformation possible in developing countries? World Development 131: 104,955

Political incentives

- Pailler, S. (2018): Re-election incentives and deforestation cycles in the Brazilian Amazon. *Journal of Environmental Economics and Management* 88: 345–365, link.
- Burgess, R., M. Hansen, B. A. Olken, P. Potapov, and S. Sieber (2012): The political economy of deforestation in the tropics. *The Quarterly Journal of Economics* 127 (4): 1707–1754

Aid

- Gehring, K., L. C. Kaplan, and M. H. Wong (2022): China and the world bank—how contrasting development approaches affect the stability of african states. *Journal of Development Economics* 158: 102,902
- Dreher, A., A. Fuchs, R. Hodler, B. C. Parks, P. A. Raschky, and M. J. Tierney (2019): African leaders and the geography of china's foreign assistance. *Journal of Development Economics* 140: 44–71

Pollution and health

- Greenstone, M. and R. Hanna (2014): Environmental regulations, air and water pollution, and infant mortality in india. *American Economic Review* 104 (10): 3038–72
- He, G., S. Wang, and B. Zhang (2020): Watering Down Environmental Regulation in China*. *The Quarterly Journal of Economics* 135 (4): 2135–2185

Sustainable development

 Cai, X., Y. Lu, M. Wu, and L. Yu (2016): Does environmental regulation drive away inbound foreign direct investment? evidence from a quasi-natural experiment in china. *Journal of Development Economics* 123: 73–85

Resource conflicts

- Aragón, F. M. and J. P. Rud (2013): Natural resources and local communities: Evidence from a peruvian gold mine. *American Economic Journal: Economic Policy* 5 (2): 1–25
- Mamo, N., S. Bhattacharyya, and A. Moradi (2019): Intensive and extensive margins of mining and development: Evidence from sub-saharan africa. *Journal of Development Economics* 139: 28–49

Resource course

- Pelzl, P. and S. Poelhekke (2021): Good mine, bad mine: Natural resource heterogeneity and dutch disease in indonesia. *Journal of International Economics* 131: 103,457
- Angrist, J. D. and A. D. Kugler (2008): Rural windfall or a new resource curse? coca, income, and civil conflict in colombia. *The Review of Economics and Statistics* 90 (2): 191–215
- Smith, B. (2015): The resource curse exorcised: Evidence from a panel of countries. *Journal of Development Economics* 116: 57–73

Mines and conflict

- Berman, N., M. Couttenier, D. Rohner, and M. Thoenig (2017): This mine is mine! how minerals fuel conflicts in africa. *American Economic Review* 107 (6): 1564–1610
- Humphreys, M. (2005): Natural resources, conflict, and conflict resolution: Uncovering the mechanisms. Journal of Conflict Resolution 49 (4): 508–537

Economics of conflict

- Bazillier, R. and V. Girard (2020): The gold digger and the machine. evidence on the distributive effect of the artisanal and industrial gold rushes in burkina faso. *Journal of Development Economics* 143: 102,411
- Mcguirk, E. and M. Burke (2020): The economic origins of conflict in africa. *Journal of Political Economy* 128 (10): 3940–3997

Resource curse and government

- Caselli, F. and G. Michaels (2013): Do oil windfalls improve living standards? evidence from brazil. American Economic Journal: Applied Economics 5 (1): 208–38
- Gallego, J., S. Maldonado, and L. Trujillo (2020): From curse to blessing? institutional reform and resource booms in colombia. *Journal of Economic Behavior and Organization* 178: 174–193

Water scarcity and conflict

 Unfried, K., K. Kis-katos, and T. Poser (2022): Water scarcity and social conflict. Journal of Environmental Economics and Management 113: 102,633

Resource discoveries

- Arezki, R., V. A. Ramey, and L. Sheng (2016): News shocks in open economies: Evidence from giant oil discoveries*. The Quarterly Journal of Economics 132 (1): 103–155
- Toews, G. and P.-L. Vézina (2022): Resource discoveries, fdi bonanzas, and local multipliers: Evidence from mozambique. *The Review of Economics and Statistics* 104 (5): 1046–1058

Forest, illegal crops, and conflict

- Prem, M., S. Saavedra, and J. F. Vargas (2020): End-of-conflict deforestation: Evidence from colombia's peace agreement. World Development 129: 104,852
- Prem, M., J. F. Vargas, and D. Mejía (2023): The Rise and Persistence of Illegal Crops: Evidence from a Naive Policy Announcement. *The Review of Economics and Statistics* 105 (2): 344–358

Firms and conflict

• Camacho, A. and C. Rodriguez (2013): Firm exit and armed conflict in colombia. *Journal of Conflict Resolution* 57 (1): 89–116

Resources and ethnic identity

• Berman, N., M. Couttenier, and V. Girard (2023): Mineral resources and the salience of ethnic identities. The Economic Journal 133 (653): 1705–1737

Geography and history

Nunn, N. and D. Puga (2012): Ruggedness: The blessing of bad geography in africa. Review of Economics and Statistics 94 (1): 20–36

Elites and favortism

- Balán, P., A. Bergeron, G. Tourek, and J. L. Weigel (2022): Local elites as state capacity: How city chiefs use local information to increase tax compliance in the democratic republic of the congo. *American Economic Review* 112 (3): 762–97
- Hodler, R. and P. A. Raschky (2014): Regional favoritism. Quarterly Journal of Economics 129 (2): 995–1033

Informatliy

- Campos, F., M. Goldstein, and D. McKenzie (2023): How should the government bring small firms into the formal system? experimental evidence from malawi. *Journal of Development Economics* 161: 103,045
- Ulyssea, G. (2018): Firms, informality, and development: Theory and evidence from brazil. *American Economic Review* 108 (8): 2015–47

Health policies/interventions

- Rocha, R. and R. R. Soares (2010): Evaluating the impact of community-based health interventions: evidence from brazil's family health program. *Health Economics* 19 (S1): 126–158
- Mattos, E. and D. Mazetto (2019): Assessing the impact of more doctors' program on healthcare indicators in brazil. World Development 123: 104,617

Short term economic effects from natural and climate shocks

- Joseph, I.-L. (2022): The effect of natural disaster on economic growth: Evidence from a major earth-quake in haiti. World Development 159: 106,053
- Cavallo, E., A. Powell, and O. Becerra (2010): Estimating the Direct Economic Damages of the Earthquake in Haiti. *The Economic Journal* 120 (546): F298–F312

Long-term economic effects from natural and climate shocks

- Gignoux, J. and M. Menéndez (2016): Benefit in the wake of disaster: Long-run effects of earthquakes on welfare in rural indonesia. *Journal of Development Economics* 118: 26–44
- Dell, M., B. F. Jones, and B. A. Olken (2012): Temperature shocks and economic growth: Evidence from the last half century. *American Economic Journal: Macroeconomics* 4 (3): 66–95, link.

Pollution impacts on cognitive performance

- Carneiro, J., M. A. Cole, and E. Strobl (2021): The effects of air pollution on students' cognitive performance: Evidence from brazilian university entrance tests. *Journal of the Association of Environmental and Resource Economists* 8 (6): 1051–1077
- Heissel, J. A., C. Persico, and D. Simon (2022): Does pollution drive achievement? the effect of traffic pollution on academic performance. *Journal of Human Resources* 57 (3): 747–776

Pollution impacts on health

- Chen, S., P. Oliva, and P. Zhang (2018): Air pollution and mental health: Evidence from china. Working Paper 24686, National Bureau of Economic Research
- Tanaka, S. (2015): Environmental regulations on air pollution in china and their impact on infant mortality. *Journal of Health Economics* 42: 90–103

8 Case study projects

Case studies based on articles in *The Economist* are a great starting point to replicate analyses and conduct a case study. An analysis could, for example, use a regional subset or create alternative projection methods. Check out *The Economist's* GitHub page. Articles are available on eLearning if not freely available.

- "Cheap fixes could help 450m people stand taller and think quicker". (Article GitHub).
- "Our Big Mac index shows how burger prices differ across borders". (Article, GitHub).
- "Productivity has grown faster in western Europe than in America" (Article, GitHub)
- "How cynical leaders are whipping up nationalism to win and abuse power" (Article, GitHub)
- "A different way to measure the climate impact of food" (Article, GitHub).
- "Globalisation has marginalised many regions in the rich world" (Article, Follow up article, GitHub).

Further ideas may include:

- Research and report on cities' and counties' (lawn and) tree protection regulations, e.g., in the DFW area.
- Systematic bibliography overview on a specific topic (e.g., gig economy, the political economy of deforestation, heat shocks and crime, climate shocks and mobility).