

Tarun M. Khanna

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Professional experience

- 2017 - present **Research Associate and Teaching Assistant, Hertie School**, Berlin
- EU Horizon 2020 project SENTINEL, organized workshops with stakeholders, coordinated with research partners
 - BMBF funded project START on electricity market design in Germany
- 2021 **Research Associate, Mercator Research Institute on Global Commons and Climate Change (MCC)**, Berlin
- BMBF funded project Ariadne on policy evaluation
- 2019 **Visiting Researcher, International Energy Agency (IEA)**, Paris
- Developed power sector cost optimization model for the Indian state of Gujarat in PLEXOS®
 - Contributed to reports on energy policy, system integration of renewables
- 2016 **Research Associate, Potsdam Institute for Climate Impact Research (PIK)**, Berlin
- Independently authored report on development of renewables in India
- 2010 - 2015 **Consultant/ Senior Consultant/ Manager, PricewaterhouseCoopers (PwC)**, Delhi
- Authored research reports on power sector in India and Nepal for the World Bank, the Asian Development Bank, governments, and regulators
 - Research and scientific policy advice for electricity policy and regulation, renewable energy development to electricity regulators, power distribution and generation companies
- 2009 - 2010 **Data Scientist, CSIL, Bangalore**
- Trained in data mining, analysis and statistical modeling

Education

- 2018 - present **Hertie School, Berlin**
PhD Candidate, Doctoral Program in Governance
- 2015 - 2017 **Hertie School, Berlin**
Master of Public Policy, Grades: A/ 1.3/ 91.3%, ranked 9th of 132 students
- 2016 - 2017 **ETH-Zurich, Energy Politics Group, Zurich**
Visiting master thesis student with Prof. Tobias Schmidt
- 2007 - 2009 **Delhi School of Economics, University of Delhi, Delhi**
MA, Economics, Grades: First Class, 67%, ranked among top 10 students of the graduating class
- 2004 - 2007 **Shri Ram College of Commerce, University of Delhi, Delhi**
BA (Hons), Economics, Grades: First Class, 73%

Research interests

- Energy and Climate policy
- System Integration of Renewables
- Electricity Market Design
- Policy Evaluation
- Behavioral Economics
- Energy in Development

Publications

Peer-reviewed

Khanna, T.M., Minx, J.C. & others (2021) A multi-country meta-analysis on the role of behavioral change in reducing energy consumption and CO₂ emissions in residential buildings. *Nature Energy*, *accepted*.

Eicke, A., Khanna, T.M. & Hirth, L. (2020) Locational Investment Signals: How to Steer the Siting of New Generation Capacity in Power Systems? *The Energy Journal*, *41(6)*.

With Minx, J. C. & others (2018) Negative emissions—Part 1: Research landscape and synthesis. *Environmental Research Letters*, *13(6)*, 063001

With Fuss, S. & others (2018) Negative emissions—Part 2: Costs, potentials, and side effects. *Environmental Research Letters*, *13(6)*, 063002

Working papers

Khanna, T.M. (2021) Optimizing agricultural demand response for reducing costs of renewable energy integration in India. *ECONSTOR Working paper*.

Selected power sector reports

IEA (2021) *Renewables Integration in India*. International Energy Agency, Paris

IEA (2021) India Energy Outlook 2021. International Energy Agency, Paris

CD-LINKS (2016) Report on case studies assessing the effectiveness of existing policies. Potsdam Institute for Climate Impact Research (PIK), Potsdam

World Bank (2014) India Power Sector Diagnostic Review: More Power to India - The Challenge of Distribution. The World Bank, Washington DC

ADB (2014) *Appropriate Tariff and Regulatory Structure for Hydropower Development in Nepal*. Asian Development Bank, Manila

FOR (2013) Introducing competition in retail electricity supply in India. Forum of Regulators of India, New Delhi

MERC (2010) Scientific Study for Implementing Uniform (Retail) Tariffs in Mumbai. State Electricity Regulatory Commission of Maharashtra, Mumbai

Review

Reviewed journal articles for Elsevier journals *SoftwareX* and *Socio-Economic Planning Sciences*

Teaching

- 2020 Tutored masters level course in Economic Growth and Development at the Hertie School
- 2019 Visiting lecturer at the Technical University of Berlin for masters level course in Electricity Economics and Modeling
- 2018 Tutored masters level course in Energy Policy at the Hertie School
- 2018 Developed course curriculum for course on Climate Policy and Applied Data Analysis for the Pan African University – institute of Water and Energy sciences (PAUWES)
- 2017 Edited and co-authored the open access, online teaching resource [*Open Electricity Economics*](#)
- 2017 Tutored masters level course in Economic Growth and Climate Change at the Hertie School

Conference presentations

Role of behavioral change in reducing energy consumption and CO2 emissions in residential buildings.

- 15th ENERDAY Conference, Dresden, Germany, 2021
- European Association of Environmental and Resource Economics (EAERE) conference, 2021
- International Association of Energy Economics (IAEE) Online conference, 2021

Optimizing agricultural demand response for reducing costs of renewable energy integration in India.

- International Energy Workshop, Fraunhofer ISE, Freiburg, 2021
- MES Conference of the IAEE, Dhaka, 2021
- Sustainable Energy Transitions Initiative (SETI) Fifth Annual Meeting Virtual Workshop, 2020

Awards and professional recognition

- 2019 IGCS Scholarship for Indo-German Summer School on Energy
- 2018 - 21 Hertie School PhD scholarship
- 2016 Award to attend Hoover IP² Summer Teaching Institute on Economics and Politics of Regulation at Stanford University
- 2015 - 17 Helmut Schmidt Scholarship, German Academic Exchange Agency (DAAD) for six-month German language training and tuition waiver for masters program
- 2014 Promoted to Manager at PwC
- 2013 PwC Client Satisfaction Award for outstanding work on a client project
- 2012 Promoted to Senior Consultant at PwC
- 2010 - 11 Received highest performance rating at PwC for two consecutive years
- 2009 UGC-NET for lectureship with Junior Research Fellowship Award by University Grants Commission, India
- 2007 - 09 National (CAS) Graduate Scholarship, Delhi School of Economics

Skills

- Software PLEXOS (Advanced), R (Advanced), GAMS (Intermediate), MS Excel (Advanced), MS Word (Advanced), MS PowerPoint (Advanced)
- Language English, Hindi (bilingual); German (intermediate, B2)

Service

Board Member, Hertie Energy and Environment Network (HEEN)

- Responsible for organizing the bi-annual Hertie Energy Networking Event
- Developed the Master Thesis Mentorship program

Representative of Research Associates, Academic Senate of the Hertie School

- Participated in university administration, served on recruitment committees

References

Prof. Lion Hirth, Hertie School, hirth@hertie-school.org

Prof. Rangan Banerjee, IIT Bombay, rangan@iitb.ac.in