

# Manisha Jain

Indira Gandhi Institute of Development Research (IGIDR)

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## Education

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### **Ph.D. in Interdisciplinary Program in Climate Studies, Indian Institute of Technology Bombay, Mumbai, 2017**

Title: Consumer choices in purchase and utilization of energy intensive appliances

Supervisors: Dr Anand B. Rao and Dr Anand Patwardhan

Committee Members: Prof Rangan Banerjee, Prof K Narayananana and Prof Trupti Mishra

CPI: 8.7/10

### **M.Tech, Energy Systems Engineering, Indian Institute of Technology Bombay, Mumbai, 2005**

Thesis title: Load emulation using power electronic converters

Supervisor: Prof Mukul Chandorkar

CPI: 8.3/10

### **B.Tech, Electrical Engineering, Institute of Engineering and Technology, Lucknow, 2003**

CPI: 8.1/10

## Employment

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Assistant Professor, IGIDR, Mumbai *2021 to present*

Visiting Assistant Professor, IGIDR, Mumbai *2018 to 2021*

Research and Teaching Assistant, IIT Bombay, Mumbai. *2011-17*

Senior Analyst, ABPS Infrastructure Advisory Private Limited, Mumbai. *2009-11*

Research Associate, The Energy and Resources Institute (TERI), New Delhi. *2005-08*

## Journal articles

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**Energy savings from efficiency improvements in past three decades: Estimates from 144 countries.** Jain, Manisha. Applied Energy, 381, p.125129. (2025)

**Debt as catalyst: Empowering renewable energy in developing countries.** Kushawaha, Deepak, and Manisha Jain, Energy Policy, 194, p.114336. (2024)

**Assessing India's Energy Balances: Climate and SDG** Jain, Manisha. Economic and Political weekly (2023): LVIII No.29 30-35.

**Estimates of energy savings from energy efficiency improvements in India using Index Decomposition Analysis.** Jain, Manisha. Energy for Sustainable Development (2023), 74, pp.285-296.

**Energy Cost Information and Consumer Decisions: Results from a Choice Experiment on Refrigerator Purchases in India** Jain, Manisha, Anand B. Rao, and Anand Patwardhan. The Energy Journal 42.2 (2021).

**Appliance labeling and consumer heterogeneity: A discrete choice experiment in India** Jain, Manisha, Anand B. Rao, and Anand Patwardhan. Applied Energy 226 (2018): 213-224.

**Consumer preference for labels in the purchase decisions of air conditioners in India** Jain, Manisha, Anand B. Rao, and Anand Patwardhan. Energy for Sustainable Development 42 (2018): 24-31.

**Employment Outcomes of Renewable Energy Technologies: Implications of Policies in India.** Jain, Manisha, and Anand Patwardhan. Economic and Political weekly (2013): 84-89.

## Working papers

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**Access to Clean Cooking Fuel and Women Outcomes** Nandwani Bharti, Manisha Jain. IGIDR Working Paper No. 2024-017 (2024)

**India's progress in meeting its climate goals: A comparative analysis using country-reported and external data** Jain, Manisha. IGIDR Working Paper No. 2021-007 (2021)

**Drivers of change in India's energy-related carbon dioxide emissions during 1990-2017** Jain, Manisha. IGIDR Working Paper No. 2020-019 (2020)

## Book Chapters

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**Global Estimates of Energy Efficiency Savings in Electricity Supply**, in International Conference on Advances in Energy Research, Volume-2, Springer Nature 49-56, 2024

**Environmentally Extended MRIO-SDA Analysis on Indias Emissions During 2005-2014**, Yashna Kumar, Manisha Jain, International Conference on Advances in Energy Research, Volume-1, Springer Nature 527-541, 2024

**India's progress towards climate change mitigation goals: An analysis using country-reported GHG emission inventories** Jain, Manisha, India Development Report 2022, edited by Mahendra Dev, Oxford University Press

**Appliance Standards and Incremental Price of Efficiency** Jain, Manisha, Anand B. Rao, and Anand Patwardhan. Advances in Energy Research, Vol. 1. Springer, Singapore, 2020. 695-704.

**Energy Efficiency Policies in India: Implications for Climate Change Mitigation** Jain, Manisha, Anand B. Rao, and Anand Patwardhan. Climate Change Signals and Response. Springer, Singapore, 2019. 289-303.

## Conference Proceedings

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**Energy Intensity and CO2 emissions: India's progress towards energy and climate change mitigation goals.** Jain Manisha. Energy Covid and Climate Change, 1st IAEE Online

Conference, 7-9th June 2021. International Association of Energy Economics, 2021

**Impact of Standards and Labelling Program on Consumer Discount Rate-An Experimental Study in India.** Jain, Manisha, Anand Rao, and Anand Patwardhan. Meeting the Energy Demands of Emerging Economies, 40th IAEE International Conference, June 18-21, 2017. International Association for Energy Economics, 2017.

## Opinion and popular writing

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**Carbon dioxide emissions from India's industries: Data sources and discrepancies.** Jain Manisha, Ideas for India, May 2022.

**India's progress in meeting its climate goals.** Jain Manisha, Ideas for India, April 2021.

**Tracking India's greenhouse gas emission intensity target.** Jain Manisha, Ideas for India, August 2020.

## Conferences, Workshops and Training

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**Role of energy efficiency and fuel mix in power system transition: An index decomposition analysis,** 9th International Conference on Advances in Energy Research, IIT Bombay, December 12-14, 2023

**Environmentally Extended MRIO-SDA Analysis on Indias CO2 Emissions during 2005-2014,** 9th International Conference on Advances in Energy Research, IIT Bombay with Yashna Kumar, December 12-14, 2023

**Harnessing Data for Development (D4D),** Hotel Taj Palace, New Delhi, with Niti Aayog, November 1, 2023

**Empirical methods for the analysis of the Energy Transition,** 5-day training program at Barcelona School of Economics in Barcelona, Spain 10-14 July 2023

**Economics of Energy and the Environment,** Virtual Executive Education Course, Energy Institute at HAAS, 28th January-2nd February 2021.

**2nd Annual Roundtable on Residential Electricity Consumption,** New Delhi, Prayas Energy Group and Centre for Policy Research, August 28, 2019.

**Consumer preference in purchase and utilisation of energy-intensive appliances** with Dr Anand B. Rao and Dr Anand Patwardhan *in Poster presentation at the Fourth International Conference on Advances in Energy Research, Mumbai, India, 2013.*

**Appliance efficiency and consumer choice An empirical study of Indian consumers** with Abhishek Sethi, Akshay Soni and Dr Anand B. Rao *in Poster presentation at the Fourth International Symposium of McDonnell Academy Global Energy and Environment Partnership, Mumbai, India, 2012.*

**First Climate Science and Policy Workshop,** Indian Institute of Technology Bombay, Mumbai, India, March 2014.

**Green Finance Opportunities and Challenges Workshop,** Indian Institute of Technology

Bombay, Mumbai, India, April 2013.

**Training program on International Performance and Measurement & Verification Protocol (IPMVP)**, Alliance for an Energy Efficient Economy, Efficiency Valuation Organisation and USAID Eco III project, May 2009.

## **Projects (Team member)**

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**Sustainable Urban Development Smart Cities**, GIZ, Germany, IGIDR, 2021.

**Development of Institutional framework for Demand Side Management (DSM), DSM Regulations and Cost Benefit Analysis Guidelines**, Forum of Regulators, (ABPS Infrastructure Advisory, 2009-11).

**Development of Best Practices Guide for Design, Development, Implementation and Monitoring of Energy Efficiency Portfolio Standards**, IEA DSM Implementing Agreement, 2009-11 (ABPS Infrastructure Advisory).

**Delhi Energy Efficiency Program, A case based study involving household survey and stakeholder interaction**, Delhi Transmission Company Limited, Government of NCT of Delhi, 2007- 2008 (TERI).

**Energy Security Policy of India**, Foreign and Commonwealth Office, British High Commission, India, 2005- 2007 (TERI).

**Supply of clean energy services to the urban and peri-urban poor, Global Network on Energy for Sustainable Development (GNESD)**, 2006-2007 (TERI).

**Competition Issues in India's Coal Sector**, The World Bank, DFID & Competition Commission of India, 2005-06 (TERI).

**Evaluation of franchise system in the electricity distribution system in rural areas**, Ministry of Power and Rural Electrification Corporation, India, 2005-07 (TERI).

## **Book**

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**Managing Power Demand A case study of the residential sector in Delhi** with Vikas Gaba and Leena Srivastava in TERI press 2007.

## **Reviewer**

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The Energy Journal (International Association of Energy Economics), Applied Energy, Energy Research & Social Science, Journal of Quantitative Economics, Springer Nature Business and Economics, Energy for Sustainable Development

## **Teaching**

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**Empirical research in energy and environment**, Jan-June 2022, Jan-June 2023

**Climate Change Science Economics and Policy**, January-July 2019, August-December 2020,

Aug-Dec 2021.

**Energy and Environment I**, Aug-Dec 2019, Aug-Dec 2023, Jan-Jun 2025

**Energy and Environment II**, Aug-Dec 2024

## **Student guidance**

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PhD supervisor of Mr Deepak Kushwaha (Title: Renewable Energy: Issues in Financing and Energy Security)

PhD supervisor of Mr Rohan Yadav (Title: Socioeconomic Impacts of Rural Electrification in India)

PhD Thesis Committee member of Mr Pratik Thakkar (Title: Essays on Impact of Climate Risks)

MSc thesis guide of Mr Utkarsh Priyadarshni (Title: The Problem of Choice in Sustainability)

MSc thesis guide of Mr Rajnikant Lal (Title: From Chores to Choice: The Ripple Effects of LPG on Household Dynamics)

MSc thesis guide of Mr Alok Kumar (Title: From Subsidies to Sustainability: Evaluating the Effects of Fossil Fuel Subsidies on GDP and Environmental Health Across Nations)

MSc thesis guide of Mr Aakash Kumar Sinha (Title: The Impact of PM 2.5 Concentration on Mortality Rates: A Cross-Country Analysis)

MSc thesis guide of Ms Yashna Kumar (Title: Environmentally Extended MRIO-SDA analysis on Indias emissions during 2005-2014)

MSc thesis guide of Mr Ashutosh Chauhan (Title: Evolution of Clean Cooking in India: A special focus on LPG)

Graduate student Shruti Srivastava under the visiting student program during June-July 2019

Graduate student Mr Vladimir Tunis under the European Master in Law and Economics program at IGIDR during April-June 2019

Graduate student Jamil Matalam under the European Master in Law and Economics program at IGIDR during April-June 2018

## **Lectures delivered**

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Guest faculty in a 3-day Certificate Programme on Carbon Trading and Markets organized by IIT Kanpur and NTPC-Power Management Institute, June 19- 21, 2023 at NTPC-PMI Campus Noida.

Two lectures in the Training program for Indian Statistical Services Probationers of 43rd and 44th batch titled India's progress in energy, climate change and development goals organized by IGIDR, Nov 21-24, 2022.

Invited lectures to students of Center for Policy Studies IIT Bombay on India's energy and emissions data, August 2022.

Panelist for a discussion held for RBI employees on the occasion of Women's Day, March 2, 2022.

Lecture at the Two-Week Online Refresher Course in Economics designed on the theme Sustainable

Strategies: Perspective from India, Ramanujan College, New Delhi, January 2022.

Lecture at School of Humanities and Social Sciences, IIT Mandi on India's progress in meeting climate goals, October 8, 2021.

Judge to Policy Challenge, Climate Change, Economic Justice Conclave, NMIMS Mumbai, January 2020.

Two lectures in the Training program for Indian Statistical Services Probationers of the 41st batch titled Climate change and development: Challenges and opportunities for India organized by IGIDR, May 20-21, 2019.

Lecture in Training program for Indian Statistical Services Probationers of 40th batch titled India's energy needs and the challenge of climate change mitigation organized by IGIDR, February 29, 2019.

Lecture in a Short Term Training Program on Capacity Building for Interdisciplinary Research on Climate Change organised by Charotar University of Science and Technology (CHARUSAT), December 3-8, 2018.

Lecture at the Sarla Anil Modi School of Economics, NMIMS Mumbai, to the 3rd year BSc students, September 12, 2018.

Lectures in the Refresher Course on Advances in Economics for Faculty organized by IGIDR, June 28, 29, and July 2 2018.

Lecture to undergraduate, postgraduate and research scholars at IIT Bombay, March 2018.

## **Administrative Responsibilities**

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Convener, Post Doctoral Fellowship Committee, IGIDR, 2022.

Co-chair, IQAC Committee, IGIDR, 2022 onwards.

Member, Library Committee, IGIDR, 2021 onwards.

Member, Website Committee, IGIDR, 2019 onwards.

Member, IT System and Office Technology Committee, IGIDR, 2020 onwards.

Member, Student Welfare and Grievance Committee, IGIDR, 2021 onwards.

Member, Internal Grievance Redressal Committee, IGIDR, 2021 onwards.