

Curriculum Vitae

DR. RITA PANDEY

Professor in Economics
National Institute of Public Finance and Policy
18/2, Satsang Vihar Marg, Special Institutional Area
New Delhi 110 067, INDIA

ACADEMIC APPOINTMENT

Professor in Economics at National Institute of Public Finance and Policy (NIPFP), New Delhi, India.

FIELDS OF SPECIALISATION:

Environmental and Natural Resource Economics and Policy; Biodiversity Finance and Policy; Climate Policy and Finance; and Market Based Instruments for Sustainable Development.

EDUCATION

Ph.D. (Economics): Indian Institute of Technology, Kanpur, India.

EXPERIENCE

Thirty years of research and teaching experience in economics. My academic responsibilities included: planning, executing and managing research projects and providing policy inputs to government and international agencies; business development; and training to senior administrators and practitioners. I have also undertaken various consultancy assignments in my individual capacity.

AWARDS AND VISITING ACADEMIC POSITIONS

- *Post-Doctoral Fellow, School of Forestry and Environmental Studies, University of Yale, Connecticut, USA, 2001.* Under a fellowship award by the Environmental Economics Overseas Fellowship Program under the World Bank Aided Environmental Economics and Management Capacity building Project in India.
- *Doctoral Research Fellowship, Indian Institute of Technology (IIT) Kanpur, India.*
- *Teaching Awards, Department of Humanities and Social Sciences, IIT Kanpur, India.*

COURSES IN ENVIRONMENTAL ECONOMICS and POLICY

- Two week course in **Integrated Air Quality Management**. The workshop covered the following topics: Continuous air monitoring methods; emissions inventory development; dispersion modelling; and source apportionment techniques.
- Five week course in **Environmental Economics and Policy Making, at Goteborg University, Sweden, April 2003**.
- Three months **programme on Environment, Energy, Resources, and Sustainability**, jointly organised by the UN University, Japan and TERI, India. Through the field trips, meetings and discussion sessions with academicians, environmentalists and policymakers in Norway, Canada, and USA, and officials at the United Nations and the World Bank, this programme provided excellent exposure to environmental concerns world-wide as well as policy measures being taken and those ought to be taken to promote sustainable development. *Presented a research paper on 'Small Scale Industries and Sustainability'*.
- Short course on **Methods for Economic Evaluation of Environmental Impacts at New Delhi**, organised by the **Asian Development Bank**. *Made a presentation on 'Economic Evaluation of Environmental Impacts of an Industrial Project'*.
- Advanced four weeks course on **Urban and Housing Finance, at the Wharton Real Estate Centre, University of Pennsylvania, USA**. *Presented a paper on 'Housing Finance in India'*.

RESEARCH PUBLICATIONS

SELECT PUBLISHED PAPERS (Refereed Journals, Edited Books (2000-))

1. **Emerging Experience with Design and Implementation of Policy Instruments for Renewal Energy Technologies Development and Deployment across Countries** in Manmohan Agarwal, Jing Wang and John Whalley (eds) "The Economies of China and India: Cooperation and Conflict" (Volume 1), The World Scientific Press, Canada, February 2017. (Co-authored with Meeta Keswani Mehra).
2. **Choice and Design of Policy Instruments towards Promoting Renewable Energy Technologies: Conceptual Framework and Guiding Principles** in Manmohan Agarwal, Jing Wang and John Whalley (eds) "The Economies of China and India: Cooperation and Conflict" (Volume 3), The World Scientific Press, Canada, February 2017. (Co-authored with Meeta Keswani Mehra).

3. Choice and Design of Fiscal Policy Instruments to Accelerate Innovation in Renewable Energy, **The International Journal on Green Growth and Development, Volume 3, 2016** (co-authored with Meeta Keswani Mehra).
4. **Groundwater Irrigation in Punjab: Some Issues and a Way Forward**, in a book entitled "Economic Transformation of a Developing Economy: The Experience of Indian Punjab" edited by Lakhwinder Singh and Nirvikar Singh, Springer 2015.
5. Role of Fiscal Instruments in Promoting Low-carbon Technology Innovation, **Green Growth Knowledge Platform working paper No. 6, November 2015**. (Co-authored with Meeta Keswani Mehra)
6. Role of fiscal instruments in promoting low carbon technology Innovation, **NIPFP working Paper No. 147, May 2015, National Institute of Public Finance and Policy, New Delhi** (co-authored with Meeta Keswani Mehra).
7. Invited Featured Article 'The Role of Fiscal Policy for Clean Technology Innovation' in the inaugural issue of the **Newsletter of the Green Fiscal Policy Network established by the UNEP, GIZ and IMF, October 2014**
8. Groundwater Irrigation in Punjab: Some Issues and Way Forward , **NIPFP working Paper No. 140, August 2014, National Institute of Public Finance and Policy, New Delhi**
9. Developmental Disability Index for Hill States in India, **Working Paper No. 134, April, 2014, National Institute of Public Finance and Policy, New Delhi** (Co-authored).
10. Role of Environmental Subsidies in India (co-authored), in **Environment and Fiscal Reforms in India** edited by **D K Srivastava and K S Kavi Kumar, Sage Publications, 2014**.
11. Impact of Fiscal Instruments in Environmental Management through Simulation Model: Case Study Of India, D. K. Srivastava and Kavi Kumar, **Technical Paper 2, September 2011, Madras School of Economics, India**.
12. Pollution-Energy-Carbon Intensity of Urban Transport in India: Dynamics of Government Policy Intervention, **India Infrastructure Report 2010, Oxford University Press, New Delhi**.
13. CETPs and Pollution Control in Small Scale Industry in India, **The Indian Economic Journal, December, 2007** (co-authored).
14. Addressing Environmental Health Threats to Children: Gaps and Challenges in **At the Crossroads: South Asian Research, Policy and Development in a Globalized World**, ed. **Saba Gul Khattak, Sama Publishing and Sustainable Development Policy Institute, Islamabad (2006)**.

15. Looking Beyond I&M in reducing Pollution from In-use Vehicles, *Environmental Economics and Policy Studies*, 7(4), (2006).
16. Pollution taxes for Industrial water Pollution Control, in *Dimensions of Environmental and Ecological Economics* ed. N C Sabu and A K Choudhary, Universities Press, October, (2005).
17. Pricing Coal Ash for Environmental Protection, *The Journal of Energy and Development*, Volume 30(2), (2005) (co-authored with Raja J Chelliah and U Sankar).
18. Unregulated Lead Extraction from used Lead Acid Batteries Cannot be Ignored, *Down to Earth*, August 15 (2005), Centre for Science and Environment, New Delhi.
19. Industrial Pollution Control in India: Issues in Design and Enforcement of Regulation, in *Sustainable Development: Bridging the Research/Policy Gaps in Southern Contexts*, ed. Saba Gul Khattak, (2005), Oxford University Press.
20. Estimating Pollution Inventories in India: Implications for using Effluent Charge vs. Regulation, *Journal of Development Studies*, Volume 41(1), (2005).
21. Economic Policy Options for Controlling Vehicular Air Pollution, *Environment and Development Economics*, Volume 9(1), (2004).
22. Comparing the Cost Effectiveness of Using a Market Based Policy Instrument Such as Tradable Permits- Versus Regulation: the Case Study of an Integrated Steel Plant in India, *Environment and Development Economics*, Volume 9(1), (2004) (co-authored with Geetesh Bhardwaj).
23. Incentive System for Replacing Old Vehicles: Its Feasibility and Adequacy of Incentives, in *Expert Committee Report on Auto Fuel Policy, Government of India*, (2002).
24. New Structure of Vehicle Road Tax Referring to Progressivity in Road Tax Linked with Age of Vehicles, in *Expert Committee Report on Auto Fuel Policy, Government of India* (2002).
25. Water Pricing and Abatement of Industrial Water Pollution: A Study of Distilleries in India, *Environmental Economics and Policy Studies*, Volume 4 (2), (2001) (co-authored with B N Goldar).
26. Pollution Tax for Pollution Abatement - a Case Study of Sugar Industry in *Econometric Studies of Economic Reforms in India*, ed. V.V.N Somayajulu, Academic Foundation, (2000).

BOOKS

1. The National Clean Energy Fund of India: A framework for promoting effective utilisation' published by **Springer in Energy Policy Brief Series, 2014.** (*co-authored with Sanjay Bali and Nandita Mongia*)
2. Environmental Taxes on Polluting Inputs and Outputs, **Academic Foundation**, New Delhi, 2008, *co-authored with* Raja J Chelliah, U Sankar and Paul Appasamy.
3. Andaman and Nicobar Islands: A Development Report, **Academic Foundation**, New Delhi, 2007, *co-authored.*
4. Housing and India's Urban Poor, *co-authored*, **Har Anand Publications, 1993, New Delhi.**
5. Corporate Financial Policy and Dividend Decisions - **Deep and Deep Publishers, 1986, New Delhi.**

SELECT STUDY REPORTS (2000-)

1. **Team Leader:** Mobilising Resources for Biodiversity conservation, Commissioned by UNDP, NIPFP Study 2018-
2. **Team Leader:** Biodiversity Finance Initiative for the Natural Resource Management in India, NIPFP study report **2017.** Commissioned by UNDP. The main aims of the study are: to map financial availability for biodiversity conservation from different sources in India; to estimate biodiversity finance needs and gaps; to identify appropriate fiscal and financial instruments, and determine related challenges and opportunities for additional resource mobilization. A preliminary assessment of the effectiveness of public spending through existing interventions, and the feasibility of alternative financing strategies for conservation and sustainable use of biodiversity by various stakeholders is also made.
3. **Team Member:** Green Climate Fund: Supporting Financial Institutions for Readiness Activities in India. **Under a grant from DFID, UK, 2015.**
4. **Team Leader:** Environmental Fiscal Reforms and Goods and Services Tax Regime: Issues, Challenges and way forward (with Sayantani Chakravorty), **NIPFP study report, 2015.**
5. **Team Leader:** Promoting Effective Utilization of the National Clean Energy Fund, **NIPFP study report 2013.** Commissioned by **Shakti Foundation, New Delhi.** This

study aims to provide a detailed framework for promoting effective utilisation and administration of NCEF. The recommendations of the study will inform the government so that appropriate corrections may be made timely. The outputs of the study will also be useful to hone the strategic thinking on a suitable energy technology policy and an assessment of technology needs besides other barriers in clean energy sector in India.

6. **Team Leader:** Base paper for the Committee to Study Development in Hill States arising from Management of Forest Lands, **NIPFP study report 2012**, Commissioned by the **Planning Commission, Government of India**.
7. **Team Leader:** Study on Developmental Disability Index for Hill States in India, **NIPFP study report 2012**. Commissioned by the **Planning Commission of India, Government of India**. The main objective of this report is to develop a methodology for constructing a “cost disability” index with focus on hill states in India, and illustrate the methodology by constructing indices for hill states. The main argument is that “cost disabilities” which arise due to factors exogenous to state control such as difficult terrain, extreme and variable climatic conditions, large areas under forest, cost mark-ups due to technological and material requirements, require that states are compensated through additional allocation by incorporating these in inter-governmental grants.
8. **Team Member:** Vision 2020, A Strategy for development of North Eastern States, **NIPFP study report 2007**. Commissioned by the **North Eastern Council and the Department of Development of North Eastern Region, Government of India**.
9. **Team Leader:** State Development Report of Andaman and Nicobar Islands, **NIPFP study report, 2006, commissioned by the Planning Commission of India**. Objective of this study is to provide a macro perspective of the development strategy for the Andaman and Nicobar Islands with special focus on fiscal, institutional and financial reforms; and rationalisation of subsidies and pricing of services. Led a team of ten professionals from four different institutions.
10. **Led NIPFP team** for a study on “A Proposal to Levy Taxes on Polluting Inputs and Outputs” at the instance of the **Ministry of Environment and Forests, joint report of MSE and NIPFP, 2005**. Some of the recommendations of the report were implemented by the Government of Delhi.
11. **Team Leader:** Subsidies and the Environment: With Special Reference to Agriculture in India. Developed an analytical framework for identifying the role and impact of subsidies on the environment – distinguishing in this specific context between positive and perverse subsidies, under a grant from **World Bank sponsored capacity building project, NIPFP study report, 2003**.
12. **Team Leader:** Incentive System for Replacing Old Vehicles: its Feasibility and Adequacy of Incentives. Invited report by the Expert Committee on Auto Fuel policy In India, funded by the Ministry of Petroleum, **NIPFP study report, 2002**.
13. **Team Leader:** New Structure of Vehicle Road tax Referring to Progressivity in Road

tax Linked With age of Vehicles, Invited report by the Expert Committee on Auto Fuel policy In India, funded by the Ministry of Petroleum, *NIPFP study report, 2002.*

14. **Team Leader:** Estimating Industrial Pollution in India: Implications for Pollution Cess, under a grant from the **Ministry of Environment and Forests, NIPFP study report, October 2001.**
15. **Team Leader:** Economic Policy Instruments for Controlling Air Pollution in Delhi co-authored, under a grant from the **Ministry of Environment and Forests, NIPFP study report, January 2000, New Delhi.**

SELECT PAPERS IN PROCEEDINGS OF CONFERENCES, and SEMINARS (2000-)

1. Presented on ‘**Mobilizing Biodiversity Finance in India: Challenges and Opportunities**’ at URBIO International Network for Urban Biodiversity and Design Conference, September 11-14, 2018, Cape Town, South Africa.
2. Invited speaker and Chair at international conference on **Sustainable Growth through Material Recycling: Policy Prescriptions** organized by NITI Aayog, Government of India and Material Recycling Association of India, August 6, 2018, New Delhi.
3. Participated in **Driving the Next Stage of Green Finance: India-UK Dialogue 2018**, organized by Climate Bonds Initiative and FICCI, 16 July, London.
4. Green Finance Summit 2018 – **Mainstreaming Green Finance**, Organized by City of London 17 July, London.
5. Speaker at a Conference on ‘Environmental science, Technology and Biodiversity’ 29-31 March, 2018 at Vienna, Austria.
6. Presented a paper on **CSR and Corporate Sustainability - Opportunities for Biodiversity Finance**, 3rd BIOFIN Global conference 6-8 March, 2018 Mahabalipuram, Tamil Nadu.
7. Presented a paper “**compensating for cost disabilities associated with provision of public services: Application to highly forested hill states in India**” (co-authored) in 23rd Annual Conference of European Association of Environmental and Resource Economists - 28 June - 1 July 2017, Athens, Greece
8. **Participated** in the CoP 13 to the Convention of Biological Diversity and **presented** a paper on “**key Observations on Policy, Institutional, and expenditure Review for Biodiversity in India and the Way Forward**” in a Side Event ‘BIOFIN—A Journey through BIOFIN country results around the world’, Cancun, Mexico, 5-11 December, 2016.
9. **Presented** a paper on “**Policy, Institutional, and expenditure Review for Biodiversity in India**” in BIOFIN Second Global Workshop, Los Cabos, Mexico, 12-15 April, 2016.

10. **Presented** a paper on “**Mapping Public Spending on Biodiversity in India - An approach based on scoring of Biodiversity relevant activities**” in BIOFIN Regional Workshop for Asia and the Pacific, Bali, Indonesia, 2-4 March, 2016.
11. **Co-organized** (with TERI) and participated as a member in the fifth meeting of the **Indo-German Expert Group on Green and Inclusive Economy**, on October 30, 2015, IHC, New Delhi.
12. **Presented** a paper on '**Mobilizing Resources for Biodiversity and Sustainable Development**' in UN-IPBES Capacity Building Forum Meeting on 19 October, 2015 at the Wildlife Institute of India.
13. **Speaker** in a Panel discussion on '**Financing Low Carbon Development**' at the workshop on Finance, Innovation Policy, and Sub-national Actions: Towards Low Carbon Development in India on 17th September 2015 at IHC, New Delhi.
14. **Panelist** in a **policy dialogue on Environmental Governance in the context of sustainable development in India** organized by Konrad-Adenauer-Stiftung and TERI, on 14th - 15th July, 2015, New Delhi.
15. **Invited** to Participate in 1st **BIOFIN Regional Workshop for Europe, Asia and the Pacific** Kuala Lumpur, Malaysia 3-5 March 2015.
16. **Organized and participated** in a National conference on ***Environmental Fiscal Reforms and Goods and Services Tax Regime***, 26 February, 2015, Chennai (*co-organiser Tamil Nadu State Planning Commission*).
17. **Presented** a paper on **Role of fiscal instruments in promoting low carbon technology Innovation, paper presented at international conference on Fiscal Policies and the Green Economy Transition: Generating Knowledge – Creating Impact**, 29-30 January, 2015, Venice, Italy (*co-authored with Meeta Keswani Mehra*).
18. **As member** of the Indo German expert group on a Green and Inclusive Economy participated in its third meeting, November 2014, Berlin, Germany.
19. **Participated in 2nd European Resources Forum 10 – 11 November 2014**, in Berlin, Germany.
20. **Invited expert** at a workshop on “Reforming Fossil Fuel Subsidies for an Inclusive Green Economy” organized by UNEP and GIZ, April 28-29, 2014 at Nairobi, Kenya.
21. **Invited participant** in a workshop and Policy Dialogue on '**Incorporating Biodiversity and Ecosystem Services into National Development Policy**' 20-21 September 2014, Kings College, Cambridge, United Kingdom.
22. **Presented** a Paper '**Groundwater Irrigation in Punjab: Some Issues and Way Forward**' in International Conference on “Rejuvenation of Punjab Economy” jointly *organised by University of California Santa Cruz, USA and Centre for Development Economics and Innovation Studies, Punjabi University, Patiala at Patiala, 21-23 March, 2014.*
23. **As Member of an Indo-German Expert Group on 'A Green and Inclusive Economy'** participated in its Second meeting in Delhi, February 3-4, 2014.

24. **Resource person and Session Chair in a workshop on 'Action Plan for Green Budgeting in Punjab'** organized by the Punjab State Council for Science and Technology and TERI in Chandigarh on January 30, 2014.
25. Participated and **chaired a session in 'National Consultation on Economic valuation of bio-resources for access and benefit sharing'** as part of a UNEP-GEF-MoEF project on strengthening the implementation of the biological diversity act and rules with focus on its access and benefit sharing provisions Organised by National Bio-Diversity Authority at Chennai, 9-10 December, 2013.
26. **Resource person in a Round Table on "Effectiveness of Environmental Fiscal Reforms (EFR) in dealing with Industrial pollution in context of Political Economy of India"** held on August 12, 2013 as part of the 8th Annual Conference on Public Policy and Management held at the IIM Bangalore campus during 12-14 August, 2013.
27. **National Clean Energy Fund and Energy Efficiency Activities**, paper presented in an international conference on 'Designing and Implementing a Standard Offer program for India', April 12, 2013 at Puducherry.
28. **Environmental Fiscal Reforms: Prospects and Challenges**, paper presented at a workshop on Environmental Fiscal Reforms, **jointly organized by MoEF, GIZ and TERI, 20 September, 2012, at IHC, New Delhi.**
29. **Ecological Crisis: Issues and challenges in Climate Change Policy**, paper presented in **National Seminar on Ecological Crisis**, September 8-9, 2011, Punjabi University Patiala, Patiala, India.
30. **Climate Change Financing: Fiscal Perspectives**, paper presented in **Workshop on Climate Change Financing**, organized by DEA, Ministry of Finance, Government of India and UNDP, January 14, 2012, New Delhi.
31. A Proposal for Stimulating Fuel Economy of Road Transport in India, paper presented in **Third World Congress of Environmental and Resource Economists, July 3-7, 2006, Kyoto, Japan.**
32. Addressing Environmental Health Threats to Children: Identifying Gaps and Challenges, paper presented in **8th Sustainable Development Conference 7-9 December, 2005, Islamabad, Pakistan.**
33. Resource person in a workshop on **Capacity Development for the Clean Development Mechanism**, organised by AIT and URC Denmark during **19-21 October, 2005, Bangkok, Thailand.**
34. MBI's to Achieve Environmental Policy Goals: A Case of Cess on Coal, paper presented in **Better Air Quality 2004 Conference, December 5-8, 2004 Agra, India.**
35. Industrial Pollution Control in India: Issues in Design and Enforcement of Regulation, paper presented in **6th Sustainable Development Conference December 11-14, 2003, Islamabad, Pakistan.**

36. Feasibility of using Emission Charges, Emission Warranty and Technical Options in addressing pollution from On- Road Vehicles, in *Better Air Quality 2003 Conference, Manila, Philippines, December 15-18, 2003.*
37. Invited participant in a conference on *Innovative Sources of Development Finance, Helsinki, Finland, September 6-8, 2003.*
38. New Structure of Vehicle Road Tax Referring to Progressivity in Road Tax, paper presented at the *international conference on Pricing of Services, at Singapore, 2001.*
39. Tradable Permits for Controlling Environmental Pollution, paper presented at the *Second International Congress of Environment and Development Economics, Royal Swedish Academy, Stockholm, Sweden, 2000.*
40. Intra-firm Trading for Containing Air Pollution, paper presented at the *International Society of Ecological Economists Congress, Canberra, Australia, 2000.*
41. Issues in Air Pollution Control from Automobiles, paper presented at the inaugural meeting of *South Asian Network of Development and Environment Economics, Kathmandu, Nepal, 2000.*

HONORS AND OTHER PROFESSIONAL ACTIVITIES (2000-)

- *Member: Indo German expert group on a Green and Inclusive Economy, 2014-*
- *Member: Empowered Steering Committee to implement the Montreal Protocol, appointed by the Ministry of Environment and Forests, Government of India, 2016-.*
- *Member: Committee to draft The Rights of Persons with Disabilities Bill, appointed by the Ministry of Social Justice and Empowerment, Government of India, October 2010- June 2011.*
- *Member: Board of Directors, Occupational Knowledge International, San Francisco, California, USA, 2007-2013.*
- *Member: Study Group on lotteries, constituted by Ministry of Home Affairs, Government of India, 2006.*
- *Member: Governing Board, National Institute of Public Finance and Policy, New Delhi, 2006-2007.*
- *Member: Panel of Experts in Economics of North Eastern Hill University, Shillong, India, 2005-07.*
- *Member: Technological and Finance Standing Committee to implement the Montreal Protocol, appointed by the Ministry of Environment and Forests, Government of India, 1997-2007.*
- *Member: Empowered Steering Committee to implement the Montreal Protocol, appointed by the Ministry of Environment and Forests, Government of India, 1997-2007.*
- *Member: Sub-Group on Environment constituted by the Ministry of Environment and Forests, Government of India, for Tenth Five Year Plan.*

- **Member: Sub-group on Resource Mobilisation for New and Renewable Sources of Energy**, constituted by the Ministry of Non-Conventional Energy Sources, Government of India for the Tenth Five Year Plan.
- **Member: Expert Committee** to suggest ways and means to encourage recycling of lead acid batteries, 2007.
- **Member Secretary:** Environmental Economics Overseas Fellowship Committee constituted by the MoEF under the World Bank Aided India -Environmental Economics Capacity Building Project, 1998-2003.

Referee to Journals, Institutions and Conferences

- **Journal Reviewer:** Environment and Development Economics, Journal of Development Studies, Journal of Environmental Management, Science for the Total Environment.
- **Reviewer:** Research proposals and reports for SANDEE, UNEP, Oxford University Press, NIPFP and Academic Press, International Institute for Sustainable Development, Winnipeg, Canada, European Association of Environmental and Resource Economists.
- PhD thesis examiner: Indian Institute of Technology, Kanpur, Calcutta University, Madras University, Amity University, University of Delhi, Hyderabad University.

Membership of Professional Bodies/Associations

- **Member:** European Association of Environmental & Resource economists, 2006-.
- **Member:** International Society for Ecological Economics, 2000-.
- **Member:** Indian Society for Ecological Economics, 2002-.
- **Member:** International Institute of Public Finance, 1997-98.