




## University Faculty Details Page on DU Web-site

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Title	Prof.	First Name	Surender	Last Name	Kumar	Photograph
Designation		<b>Professor</b>				
Department		<b>Economics</b>				
Address (Campus)		<b>North</b>				
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<b>Education</b>						
Subject	Institution			Year	Details	
Post-doctoral	University of Illinois at Urbana-Champaign			2002	Environmental Economics	
Ph D	Jawaharlal Nehru University			2001	Environmental Economics	
M Phil	Jawaharlal Nehru University			1993	Environmental Economics	
M A	Kurukshetra University			1990	Subjects: Economics	
<b>Career Profile</b>						
Organisation / Institution		Designation	Duration	Role		
University of Delhi, Department of Economics		Professor	Since 01 May 2015	Research and Teaching		
University of Delhi, Department of Business Economics		Professor	01 Feb 2011 – 30 April 2015	Research and Teaching		
TERI University, New Delhi		Professor	01 Aug 2009- Jan 2011	Research and Teaching		
TERI University, New Delhi		Associate Professor	May 2005-July 2009	Research and Teaching		
Yokohama National University, Yokohama (Japan)		Visiting Associate Professor	May 2008- March 2009	Research		
NIPFP, New Delhi		Associate Professor	Aug 2003-May 2005	Research		
Postgraduate Arya College, Panipat		Senior Lecturer	Aug 1995-Aug 2003	Research and Teaching		
University of Illinois at Urbana-Champaign (USA)		Visiting Scholar	Feb 2002-Nov 2002	Research		
<b>Research Interests / Specialization</b>						
Environmental and Resource Economics, Climate Change & Energy Economics, Applied Econometrics, Efficiency & Productivity Analysis						
<b>Teaching Experience ( Subjects/Courses Taught)</b>						
Applied Environmental Analysis, Resource Economics, Applied Production Analysis, Environmental and Resource Economics, Climate Change Economics, Advance Econometrics, Energy Economics, Economic Analysis of Public Policy, Sustainable Development & Business						
<b>Executive Education</b>						
<ul style="list-style-type: none"> <li>• Organized executive training program on Business and Climate Change during August 17-21, 2009 and to be organized during August 2-4, 2010 at TERI University, New Delhi.</li> <li>• Coordinated UGC Sponsored Refresher Course in Economics during December 3-22, 2012, University of Delhi, South Campus.</li> </ul>						
<b>Honors &amp; Awards</b>						
<ul style="list-style-type: none"> <li>• Lead Author for the chapter 10, <i>Key Economic Sectors and Services</i>, of the Working Group II contribution to the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5)</li> <li>• 'FY 2008 JSPS Invitation Fellowship Program for Research in Japan (Long Term)', Yokohama National University, May 2008 to March</li> </ul>						

2009.

- Post-Doctoral Fellowship awarded by the National University of Singapore in December 2002 (not availed).
- Environmental Economics Overseas Fellowship under the World Bank Aided Environmental Management Capacity building Project in India, University of Illinois at Urbana-Champaign, February to November 2002.
- University Grant Commission's Junior and Senior Research Fellowship (1990-1995)

**Publications (LAST FIVE YEARS)**

**Books / Monographs**

<u>Year of Publication</u>	<u>Title</u>	<u>Publisher</u>	<u>Co-Author</u>
2015	Socio-Economic Implications of Agricultural Residue Burning	Springer, New Delhi	Parmod Kumar and Luxmi Joshi

**In Indexed/ Peer Reviewed Journals**

<u>Year of Publication</u>	<u>Title</u>	<u>Journal</u>	<u>Co-Author</u>
2018	Shadow Price of CO <sub>2</sub> Emissions in Indian Thermal Power Sector	Environmental Economics and Policy Studies	R. K. Jain
2018	Corporate Participation in Voluntary Environmental Programs in India: Determinants and Deterrence	Ecological Economics	S. Shetty
2018	Does Environmental Performance Improve Market Valuation of the firm: Evidence from Indian market	Environmental Economics and Policy Studies	S. Shetty
2017	Are Voluntary Environmental Programs Effective in Improving the Environmental Performance	Environmental Economics and Policy Studies	S. Shetty
2017	India's Trade Potential and Free Trade Agreements: A Stochastic Frontier Gravity Approach	Global Economy Journal	P. Prabhakar
2016	Opacity of Environmental information in India	Economic and Political Weekly	S. Shetty
2015	Substitute or complement? Assessing renewable and non-renewable energy in OECD countries	Applied Economics	H. Fujii and S. Managi
2016	Carbon sensitive productivity, climate and institutions	Environment and Development Economics	S. Managi
2015	Does Modernization Improve Performance: Evidence from Indian Police	European Journal of Law and Economics	Sudesh Kumar
2014	Convergence in electricity consumption in India: a state level analysis	Indian Economic Review	-
2014	Assessing Sustainability of BASIC: A Comprehensive Wealth Perspective	Journal of Income and Wealth	A. W. Yalew
2013	Comprehensive Wealth and Sustainable Development in India	Journal of Income and Wealth	Kala S. Sridhar
2013	India's Urban Environment: Air and Water Pollution and Pollution Abatement	Economic and Political Weekly	A. W. Yalew
2012	Economic Impacts of Climate Change on Secondary Activities: A Literature Review	Low Carbon Economy	
2012	Productivity and Convergence in India: State Level Analysis	Journal of Asian Economics	S. Managi
2012	Measuring the performance of water service providers in urban India: Implications for managing water utilities	Water Policy	S. Gupta and G. Sarangi
2012	Stock Prices of Clean Energy Firms, Oil and Carbon Markets: A Vector Autoregressive Analysis	Energy Economics	S. Managi and A. Matsuda

Articles

**Chapters in Edited Books**

1. Kumar, S. 'Air Pollution and Traffic Congestion in Urban India' in *'Cities of Dragons and Elephants: Urbanization and Urban Development in the People's Republic of China and India'*, edited by G. Wan and M. Lu, Oxford University Press, Oxford (forthcoming)
2. Kumar, S., 'Urbanization and Water Supply and Sanitation in India' in *'Cities of Dragons and Elephants: Urbanization and Urban Development in the People's Republic of China and India'*, edited by G. Wan and M. Lu, Oxford University Press, Oxford (forthcoming)
3. Shetty, S. and S. Kumar, 'Information Disclosure: A Policy Tool for Managing Environmental and Energy Challenges' in *Energy Law and Sustainable Development*, edited by U. Tandon, Oxford University Press, New Delhi (forthcoming)
4. Kumar S. and P. Kumar, 'Economic Impact of Air Pollution from Agricultural Residue Burning on Human Health', in *Climate Change Challenge (3C) and Social-Economic-Ecological Interface-Building*, edited by S. Nautiyal et al. Springer International Publishing, Switzerland, 2016
5. Kumar, S., 'Technological Change and the Environment' in *Routledge Handbook of Environmental Economics in Asia*, edited by S. Managi, Routledge, New York (USA), 2015
6. Kumar, S., and S. Managi, 'Productivity, Institutions and Climate Change: Lessons for Asian Countries' in *Routledge Handbook of Environmental Economics in Asia*, edited by S. Managi, Routledge, New York (USA), 2015
7. Jain, S., S. Kumar and Paramjit, 'Valuation of Environmental Benefits in Asian Countries' in *Routledge Handbook of Environmental Economics in Asia*, edited by S. Managi, Routledge, New York (USA), 2015
8. Arent, D.J., R.S.J. Tol, E. Faust, J.P. Hella, S. Kumar, K.M. Strzepek, F.L. Tóth, and D. Yan, 2014: Key economic sectors and services. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 659-708.
9. Kumar, S., 'Is India on a Sustainable Development Path?' in *Selected Readings on Sustainable Development*, edited by Rakesh Kumar Mudgal and Vaishali Dhingra, ISBN: 978-93-5062-501-9, Excel Books, New Delhi, 2014
10. Kumar, S. and Managi, S. "The Potential for LCE in India" in *Climate Smart Development in Asia: Transition to Low Carbon and Climate Resilient Economies*. Ed. A. Srinivasan, F. Ling and H. Mori. Routledge, 2012.
11. Kumar, S. and Aggarwal, S.C. "Industrial Water Demand in India: Challenges and Implications for Water Pricing" in *India Infrastructure Report 2011: Water: Policy and Performance for Sustainable Development*. IDFC and Oxford University Press, 2011.
12. Kumar, S. and Murty, M.N. "Water Pollution in India: An Economic Appraisal" in *India Infrastructure Report 2011: Water: Policy and Performance for Sustainable Development*. IDFC and Oxford University Press, 2011.

#### **Papers in Non-Refereed Journals/Study Material**

13. Kumar, S. and Sridhar, K. S., "India's urban environmental challenges: Land Use, Solid Waste and Sanitation" *The Yojana* Jun. 2013: 30-35. [http://yojana.gov.in/topstory\\_details.asp?storyid=475](http://yojana.gov.in/topstory_details.asp?storyid=475)
14. Kumar, S. and Paramjit, 'Valuation of Health Impacts of Air Pollution in India', *Research Journal of Economics, Business and ICT*, vol. 5, pp. 1-7, 2012
15. Kumar, S. "Environmental Degradation and Sustainable Development in India" *Commodity Vision* 5(2): 20-27, 2011.

#### **Working/Discussion Papers**

16. Kumar, S. and Prabhakar, P. 'Negative Carbon Leakage: Evidence from South Asian Countries', Working Paper No. 109-16, South Asian Network for Development and Environmental Economics, 2016.
17. Gupta, S., Kumar, S. and Sarangi, G. K., 'Does Greater Autonomy Improve Performance? Evidence from Water Service Providers in Indian Cities' Working Paper No. 205, Centre for Development Economics, Department of Economics, Delhi School of Economics, University of Delhi, October 2011
18. Kumar, S. and Chandra, N., 'Sustainability Concerns in Indian Agriculture: An Analysis of Subsidies and Investment', [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1709898](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1709898)
19. Kumar, S., 'Analyzing Linkages between Ecosystem Services and Poverty: South Asian Perspectives', Discussion Paper, Ecosystem Services and Poverty Alleviation Study in South Asia (ESPASSA): A Situation Analysis for India and the Hindu-kush Himalayan Region, Annex 3, TERI, New Delhi 2008. [http://www.espassa.org/ESPASSA\\_deliverables.htm](http://www.espassa.org/ESPASSA_deliverables.htm)
20. Kumar, S. and Sahu, S., 'Anthropogenic Drivers of Ecosystem Change in South Asia - An Overview', Discussion Paper, Ecosystem Services and Poverty Alleviation Study in South Asia (ESPASSA): A Situation Analysis for India and the Hindu-kush Himalayan Region, Annex 3, TERI, New Delhi 2008. [http://www.espassa.org/ESPASSA\\_deliverables.htm](http://www.espassa.org/ESPASSA_deliverables.htm)

#### **Articles in Newspapers**

21. Kumar, S., "Oil Price Volatility and Need for Risk Management" *The Economic Times*, 26 March 2014: 5-5.
22. Kumar, S., "Commodity transaction tax not a prudent idea" *Financial Express* Feb. 2013: 13-13
23. Kumar, S., "CTT will hurt the commodity market" *Business Bhaskar* Feb. 2013: 4-4.

#### **Conference Presentations**

1. 'Corporate Environmentalism in India: Determinants and Deterrence' CDE-CAGE Workshop on Political Economy and Development organized by CDE-DSE and Warwick University during September 29-30, 2016.

2. 'Globalization and Sustainable Development' Special Lecture, National Conference on 25 Years of Globalization and its Impact on the Indian Economy, organized by the Guru Gobind Singh Indraprastha University, New Delhi on 12 September 2016.
3. Guest Speaker at the Seminar on Green GDP, Shaheed Sukhdev College of Business Studies, organized at South Campus, University of Delhi, August 06, 2016
4. Chaired Technical Session on Biodiversity, Development, and Eradication of Poverty in International Conference on "Conservation of Biodiversity and Sustainable Energy: Law and Practice", 12th -14th February, 2016 at CLC, DU
5. Speaker at the plenary sessions on "Energy Security and Economic Development", JMI organized International Conference on "Energy, Economy and Sustainable Development: Opportunities & Challenges" on 16-17 February, 2016.
6. Presented on 'Climate, Global Economy and Policy' during the seminar on "New Perspectives on Trade and Environment in the era of Global Economic Turbulence" on 25-Feb-2016 in PGDAV College, Nehru Nagar, University of Delhi
7. Speaker at the Plenary Session on 'Environmental Transparency' at the 5<sup>th</sup> International Conference on Social Responsibility: the Ethical Dimensions, Organized by Ramanujan College in association with Baha'I House of Worship, March 12-13, 2016
8. Guest Speaker at the Seminar on Measuring Monetary Health Benefits from reduced Air Pollution in Delhi, Daulat Ram College, University of Delhi, March 19, 2016
9. Guest of Honour at the Valedictory Session in National Conference on "Make in India: Opportunities & Challenges of Indian Economy" on 21-22 March, 2016 organized by the P. G. Arya College, Panipat.
10. Valedictory Address, National Seminar on "Trade Negotiations under WTO: Issues before Developing Countries" held on 4-5 April 2016, Shyam Lal College, University of Delhi
11. Organized workshop titled "Embodied Carbon Trade and Trade Resistances: Evidence from South Asian Countries" held on August 13, 2015 at the Delhi School of Economics as a part of SANDEE project.
12. Presented Paper titled "*Urbanization and Water Supply and Sanitation in India*" at the workshop on "*Sustainable water resource management: Perspectives from Europe and South Asia*" 28.-29.09.2015 organised by German House for Research and Innovation, New Delhi.
13. 'Urban Diseases in India: Environmental Pollution and Congestion' NIPFP Conference on Papers in Public Economics and Policy, NIPFP, New Delhi, March 12-13, 2015
14. "*Urbanization and Water Supply and Sanitation in India*", Workshop on the Comparative Study on Urbanization in the People's Republic of China and India 20-22 September 2014, Wuhan, PRC
15. 'Urban Diseases in India: Environmental Pollution and Congestion', Workshop on the Comparative Study on Urbanization in the People's Republic of China and India 20-22 September 2014, Wuhan, PRC
16. 'Relationship between Pollution and Urban Population Size' invited talk at ADB-FLCDS Workshop on Urbanization and the Poverty-Growth-Inequality Triangle School of Economics, Fudan University, Shanghai China, Oct. 31- Nov. 1, 2013
17. Climate Shocks and Production Efficiency 'Invited Paper, Fourth National Research Conference on Climate Change held at IIT Madras, on October 26-27, 2013.
18. 'Carbon Sensitive Productivity Growth, Climate and Institution' Invited Paper, DSE-TIES Golden Jubilee Conference, August 23-24, 2013.
19. 'Relationship between Pollution and Urban Population Size' invited talk at ADB-FLCDS Workshop on Urbanization and the Poverty-Growth-Inequality Triangle School of Economics, Fudan University, Shanghai China, Oct. 31- Nov. 1, 2013
20. 'Complements or Substitutes: Assessing Renewable and Non-Renewable Energy in OCED Countries' Invited Paper, Third National Research Conference on Climate Change held at IISc Bangalore on November 3-4, 2012.
21. 'Sustainable Development in India and Environmental Policy' Guest Speaker, Indo-Japan Dialogue Seminar "In Search of Sustainability" organized by Institute of Rural Research and Development, Gurgoan on April 27, 2012
22. 'Valuation of Health Impacts of Air Pollution in India' Plenary Talk during the National Seminar on Environment-Health Linkages: Emerging Issues and Policy Resources, Jamia Millia Islamia, New Delhi, March 16-17, 2012.
23. 'Economic Valuation of Forest Ecosystem Services' Invited Presentation, Regional Workshop on "Mainstreaming Ecosystem Services Approaches into Development: Application of Economic Valuation for Designing Innovative Response Policies" Bangkok 6-9 February 2012.
24. 'Carbon Sensitive Productivity Growth, Climate Change and Institution' Invited Paper, Second National Research Conference on Climate Change held at IIT Delhi on November 5- 6, 2011.
25. 'Environmental Degradation and Food Security' invited talk during the workshop organised by the United Nations Environmental Programme (UNEP) and GIST on "*Capacity-building in national planning for food security in the state of Punjab (India)*", on the 24th October 2011, at the India Habitat Centre, New Delhi
26. 'In India on a Sustainable Development Path', Invited Plenary Session on Policy Reforms and Development, International Conference on Relevance of Policy Reforms on Development: Challenges before Emerging Economics, Jamia Millia Islamia, New Delhi, Feb 24-26, 2011
27. 'Stock Prices of Clean Energy Firms, Oil and Carbon Markets: A Vector Autoregressive Analysis' Finalist for Medal, 12<sup>th</sup> GDN Annual Conference, Bogota, Colombia, Jan 13-15, 2011

#### **Total Publication Profile optional**

##### **Books**

1. Kumar, P., Kumar, S., and Joshi, L., Socio-Economic Implications of *Agricultural Residue Burning: A Case Study of Punjab, India*, Springer, New Delhi (2015)
2. Kumar, S., *Economics of Air Pollution: A Case of Thermal Power Generation in India*, VDM Publishing House, Germany (2011)
3. Kumar, S., *Energy Prices and Induced Innovation: A Directional Distance Function Approach*, VDM Publishing House, Germany (2010)

4. Kumar, S., and Managi, S., *The Economics of Sustainable Development: the Case of India*, Springer, New York (2009)
5. Murty, M.N. and Kumar, S., *Environmental and Economic Accounting for Industry*, Oxford University Press, New Delhi (2004)

#### **In Indexed/ Peer Reviewed Journals**

1. Jain, R. K. and Kumar, S., "Shadow Price of CO<sub>2</sub> Emissions in Indian Thermal Power Sector" *Environmental Economics and Policy Studies* (Forthcoming)
2. Kumar, S and Shetty, S., "Corporate Participation in Voluntary Environmental Programs in India: Determinants and Deterrence" *Ecological Economics* vol. 147, 2018, pp. 1-10.
3. Kumar, S and Shetty, S., "Does Environmental Performance Improve Market Valuation of the firm: Evidence from Indian market" *Environmental Economics and Policy Studies* vol. 20, no. 2, 2018, pp. 241-260.
4. S. Kumar and P. Prabhakar, "India's Trade Potential and Free Trade Agreements: A Stochastic Frontier Gravity Approach" *Global Economy Journal* 2017
5. Shetty S and Kumar S, "Are Voluntary Environmental Programs Effective in Improving the Environmental Performance: Evidence from Polluting Indian Industries" *Environmental Economics and Policy Studies* 2017
6. Shetty S and Kumar S, "Opacity of Environmental information in India" *Economic and Political Weekly* 2016
7. Kumar, S., Managi, S., 'Carbon sensitive productivity, climate and institutions', *Environment and Development Economics* (2016)
8. Kumar, S., Fujii, H, and Managi, S. Substitute or complement? Assessing renewable and non-renewable energy in OECD countries, *Applied Economics* (2015)
9. Yalew, A. W., and S. Kumar, 'Assessing Sustainability of BASIC: A Comprehensive Wealth Perspective' *The Journal of Income and Wealth*, Vol. 36, no. 1, pp. 1-20, 2014.
10. Kumar, S. and Kumar, S., 'Does Modernization Improve Performance: Evidence from Indian Police' *European Journal of Law and Economics* vol 39, pp. 57-77, 2015
11. Kumar, S. 'Convergence in electricity consumption in India: a state level analysis', *Indian Economic Review*, vol. XLIX(2), pp. 173-192, 2014
12. Kumar, S., 'Comprehensive Wealth and Sustainable Development in India' *Journal of Income and Wealth* vol 34, no. 2, pp. 3-15, 2013
13. Sridhar, K. S. and Kumar, S., 'India's Urban Environment: Air and Water Pollution and Pollution Abatement' *Economic and Political Weekly* vol. XLVIII, No. 06, 09 February 2013.
14. Kumar, S., and Yalew, A. W., 'Economic Impacts of Climate Change on Secondary Activities: A Literature Review' *Low Carbon Economy* 3(2), 2012.
15. Kumar, S. and Managi, S., 'Productivity and Convergence in India: State Level Analysis', *Journal of Asian Economics* (forthcoming)
16. Gupta, S., Kumar, S. and Sarangi, G. K., 'Measuring the performance of water service providers in urban India: Implications for managing water utilities' *Water Policy* 14, pp. 391-408, 2012
17. Kumar, S., Managi, S. and Matsuda, A., 'Stock Prices of Clean Energy Firms, Oil and Carbon Markets: A Vector Autoregressive Analysis' *Energy Economics*, 34(1): 215-226, 2012
18. Kumar, S., Managi, S., 'Separability and Substitutability among Water Pollutants: Evidence from India' *Environment and Development Economics* 16(6): 709-733, 2011
19. Khanna, M. and Kumar, S., 'Corporate Environmental Management and Environmental Efficiency' *Environmental and Resource Economics*, 59(2), 227-242, 2011
20. Kumar, S., and Managi, S., 'Environment and Productivities in Developed and Developing Countries: The Case of Carbon Dioxide and Sulfur Dioxide', *Journal of Environmental Management* Vol. 91, No. 07, pp. 1580-1592, 2010
21. Kumar, S., and Managi, S., 'Sulfur Dioxide Allowances: Trading and Technological Progress', *Ecological Economics* Vol. 69, no. 10, pp. 623-631, 2010.
22. Kumar, S., and Managi, S., 'Compensation for Environmental Services and Intergovernmental Fiscal Transfers: the Case of India', *Ecological Economics* Vol. 68, no. 12, pp. 3052-3059, 2009.
23. Kumar, S. and Khanna, M., 'Measurement of Environmental Efficiency and Productivity: A Cross Country Analysis', *Environment and Development Economics* Vol 14, pp. 473-495, 2009, also Working Paper No. 29, National Institute of Public Finance and Policy, New Delhi. <http://www.nipfp.org.in/working%20paper/wp29.pdf>
24. Kumar, S., and Managi, S., 'Energy Price-Induced and Exogenous Technological Change: Assessing the Economic and Environmental Outcomes', *Resource and Energy Economics* vol. 31(4), pp. 334-353, 2009.
25. Kumar, S., and Managi, S., 'Service Quality and Performance Measurement: Evidence from the Indian Water Sector', *International Journal of Water Resources Development*, vol. 26(2), pp. 173-191, 2010.
26. Kumar, S., 'Unaccounted for Water and Performance Measurement: An Empirical Analysis from the Indian Water Sector' *Water Policy*, (forthcoming).
27. Kumar, S., 'The Macroeconomic Effects of Oil Price Shocks: Empirical Evidence for India', *Economics Bulletin*, Vol. 29 no.1 pp. 14-37, 2009. <http://www.accessecon.com/Pubs/EB/2009/Volume29/EB-09-V29-I1-P2.pdf>
28. Managi, S. and Kumar, S., 'Trade Induced Technological Change: Analyzing Economic and Environmental Outcomes' *Economic Modelling*, Vol. 26. No.3, pp. 721-732, 2009.
29. Kumar, S., 'Energy Prices and Induced Technological Progress', *Economics Bulletin*, vol. 15 (17), pp. 1-15, 2008 also Working Paper Number 02.06, TERI University, New Delhi, 2006 <http://economicsbulletin.vanderbilt.edu/2008/volume15/EB-08O30006A.pdf>
30. Murty, M.N., Kumar, S. and Dhavala, K.K., 'Measuring Environmental Efficiency of Industry: A Case Study of Thermal Power

- Generation', *Environmental and Resource Economics*, vol. 38, pp. 31-50, 2007, reprint in '*Growth, Equity, Environment and Population: Economic and Sociological Perspectives*' eds. K. Chopra and C. H. H. Rao, New Delhi: Sage Publications; also Working Paper No. E/270/06, Institute of Economic Growth, Delhi, 2006, <http://www.iegindia.org/workmnm270.pdf>
31. Kumar, S., 'A Decomposition of Total factor Productivity Growth: A Regional Analysis of Indian Industrial Manufacturing Growth', *International Journal of Productivity and Performance Management*, vol. 55(3/4), pp. 311-331, 2006 also Working Paper No. 22, National Institute of Public Finance and Policy, New Delhi, 2004 <http://www.nipfp.org.in/working%20paper/wp22.pdf>
  32. Kumar, S., 'Environmentally Sensitive Productivity Growth: A Global Analysis Using Malmquist-Luenberger Index', *Ecological Economics*, vol. 56(2), pp. 280-293, Feb. 15, 2006.
  33. Kumar, S., 'Analyzing Industrial Water Demand in India: An Input Distance Function Approach' *Water Policy*, vol. 8(1), pp. 15-29, 2006 also Working Paper No.12, National Institute of Public Finance and Policy, New Delhi, 2004. <http://www.nipfp.org.in/working%20paper/wp12.pdf>
  34. Murty, M.N., Kumar, S. and Paul, M., 'Environmental Regulation, Productive Efficiency and Cost of Pollution Abatement: A Case Study of Sugar Industry in India' *Journal of Environmental Management* vol. 79(1), pp. 1-9, April 2006 also Working Paper of the Institute of Economic Growth, Delhi, Working paper No. E213/2001 <http://www.ieg.nic.in/workmnm4.pdf>
  35. Kumar, S. and Rao, D.N., 'Environmental Regulation and Production Efficiency: A Case Study of Thermal Power Sector in India' *Journal of Energy and Development*, vol. 29(1), pp. 81-94, 2003.
  36. Murty, M.N. and Kumar, S., 'Win-Win Opportunities and Environmental Regulation: Testing the Porter Hypothesis for Indian Manufacturing Industries', *Journal of Environmental Management*, vol. 67(2), pp. 139-144, 2003 also Discussion Paper of the Institute of Economic Growth, Delhi, Discussion Paper No. 25/2001 [http://www.ieg.nic.in/dis\\_mnm\\_25.pdf](http://www.ieg.nic.in/dis_mnm_25.pdf)
  37. Kumar, S. and Rao, D.N., 'Estimating Marginal Abatement Costs of SPM: An Application to Thermal Power Sector in India', *Energy Studies Review*, vol. 11(1), pp. 76-92, 2002
  38. Murty, M.N. and Kumar, S., 'Measuring Cost of Sustainable Industrial Development in India: A Distance Function Approach' *Environment and Development Economics*, vol. 7, pp. 467-486, 2002 also Working Paper of the Institute of Economic Growth, Delhi, Working Paper No. E/208/2000 (<http://www.ieg.nic.in/workmnm1.pdf>)
  39. Kumar, S. and Rao, D.N., 'Measuring Benefits of Pollution Abatement Using Health Production Function: A Case Study of Panipat Thermal Power Station', *Environmental and Resource Economics*, vol. 20, pp. 91-102, 2001.

## Articles

### Chapters in Edited Books

1. Shetty, S. and S. Kumar, 'Information Disclosure: A Policy Tool for Managing Environmental and Energy Challenges' in *Energy Law and Sustainable Development*, edited by. U. Tandon, Oxford University Press, New Delhi (forthcoming)
2. Kumar S. and P. Kumar, 'Economic Impact of Air Pollution from Agricultural Residue Burning on Human Health', in *Climate Change Challenge (3C) and Social-Economic-Ecological Interface-Building*, edited by S. Nautiyal et al. Springer International Publishing, Switzerland, 2016
3. Kumar, S., 'Technological Change and the Environment' in *Routledge Handbook of Environmental Economics in Asia*, edited by S. Managi, Routledge, New York (USA), 2015
4. Kumar, S., and S. Managi, 'Productivity, Institutions and Climate Change: Lessons for Asian Countries' in *Routledge Handbook of Environmental Economics in Asia*, edited by S. Managi, Routledge, New York (USA), 2015
5. Jain, S., S. Kumar and Paramjit, 'Valuation of Environmental Benefits in Asian Countries' in *Routledge Handbook of Environmental Economics in Asia*, edited by S. Managi, Routledge, New York (USA), 2015
6. Arent, D.J., R.S.J. Tol, E. Faust, J.P. Hella, S. Kumar, K.M. Strzepek, F.L. Tóth, and D. Yan, 2014: Key economic sectors and services. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 659-708.
7. Kumar, S., 'Is India on a Sustainable Development Path?' in *Selected Readings on Sustainable Development*, edited by Rakesh Kumar Mudgal and Vaishali Dhingra, ISBN: 978-93-5062-501-9, Excel Books, New Delhi, 2014
8. Kumar, S. and Managi, S. "The Potential for LCE in India" in *Climate Smart Development in Asia: Transition to Low Carbon and Climate Resilient Economies*. Ed. A. Srinivasan, F. Ling and H. Mori. Routledge, 2012.
9. Kumar, S. and Aggarwal, S.C. "Industrial Water Demand in India: Challenges and Implications for Water Pricing" in *India Infrastructure Report 2011: Water: Policy and Performance for Sustainable Development*. IDFC and Oxford University Press, 2011.
10. Kumar, S and Murty, M.N. "Water Pollution in India: An Economic Appraisal" in *India Infrastructure Report 2011: Water: Policy and Performance for Sustainable Development*. IDFC and Oxford University Press, 2011.
11. Murty, M.N. and Kumar, S., 'Measuring Productivity of Natural Capital' in '*India: Industrialisation in a Reforming Economy*', Essays for K. L. Krishna, edited by S. D. Tendulkar, A. Mitra, K. Narayanan and D. K. Das, Academic Foundation, New Delhi 2006.

### Papers in Non-Refereed Journals/Study Material

12. Kumar, S. and Sridhar, K. S., "India's urban environmental challenges: Land Use, Solid Waste and Sanitation" *The Yojana* Jun. 2013: 30-35. [http://yojana.gov.in/topstory\\_details.asp?storyid=475](http://yojana.gov.in/topstory_details.asp?storyid=475)
13. Kumar, S. "Environmental Degradation and Sustainable Development in India" *Commodity Vision* 5(2): 20-27, 2011.
14. Kumar, S., 'Rising Oil Prices: An Inducement to Technological Progress', *Commodity Vision* 2(1): 48-56, 2008.
15. Kumar, S. and Ghosh, N., 'Multivariate Analysis', Block 5, MECE-001 Econometric Methods, (study material prepared for MA Economics), Indira Gandhi National Open University, New Delhi, December 2006.

## Book Review

16. Kumar, S., (New Directions in Productivity Measurement and Efficiency Analysis: Counting the Environment and Natural Resources, Edited by Tihomir Ancev, MA Samad Azad and Francesc Hernandez-Sancho, Cheltenham and Northampton: Edward Elgar, 2017), *Journal of Economic Literature*, vol. 56, no. 1, 2018
17. Kumar, S., (The New Public Finance: responding to global challenges, Eds. Inge Kaul and Pedro Conceicao, Oxford University Press 2006), *International Journal of Regulation and Governance* 7(1): 93-98, 2007.
18. Kumar, S., (Environmental Economics: Theory and Applications by Katar Singh and Anil Shishodia, New Delhi: Sage Publications 2007), *Consultancy Ahead*, Jan. 2008.

#### **Working/Discussion Papers**

19. Kumar, S. and Prabhakar, P. 'Negative Carbon Leakage: Evidence from South Asian Countries', Working Paper No. 109-16, South Asian Network for Development and Environmental Economics, 2016. [http://www.sandeeonline.org/uploads/documents/abstract/1089\\_ABS\\_Final\\_WP\\_Surender\\_Prunna\\_109-16.pdf](http://www.sandeeonline.org/uploads/documents/abstract/1089_ABS_Final_WP_Surender_Prunna_109-16.pdf)
20. Gupta, S., Kumar, S. and Sarangi, G. K., 'Does Greater Autonomy Improve Performance? Evidence from Water Service Providers in Indian Cities' Working Paper No. 205, Centre for Development Economics, Department of Economics, Delhi School of Economics, University of Delhi, October 2011
21. Kumar, S. and Chandra, N., 'Sustainability Concerns in Indian Agriculture: An Analysis of Subsidies and Investment', [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1709898](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1709898)
22. Kumar, S., 'Analyzing Linkages between Ecosystem Services and Poverty: South Asian Perspectives', Discussion Paper, Ecosystem Services and Poverty Alleviation Study in South Asia (ESPASSA): A Situation Analysis for India and the Hindu-kush Himalayan Region, Annex 3, TERI, New Delhi 2008. [http://www.espassa.org/ESPASSA\\_deliverables.htm](http://www.espassa.org/ESPASSA_deliverables.htm)
23. Kumar, S. and Sahu, S., 'Anthropogenic Drivers of Ecosystem Change in South Asia - An Overview', Discussion Paper, Ecosystem Services and Poverty Alleviation Study in South Asia (ESPASSA): A Situation Analysis for India and the Hindu-kush Himalayan Region, Annex 3, TERI, New Delhi 2008. [http://www.espassa.org/ESPASSA\\_deliverables.htm](http://www.espassa.org/ESPASSA_deliverables.htm)
24. Gupta, S., Kumar, S. and Sarangi, G.K., 'Measuring the performance of water service providers in urban India: implications for managing water utilities', Working Paper No. NIUA WP 06-08, National Institute of Urban Affairs, New Delhi 2006. [http://www.niua.org/Publications/working\\_papers/water%20service.pdf](http://www.niua.org/Publications/working_papers/water%20service.pdf)
25. Kumar, S. and Rao, D.N., 'Willingness to Pay Estimates of Improved Air Quality: A Case Study of Panipat Thermal Power Station Colony, India', [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=910828](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=910828)
26. Kumar, S. and Gupta, S., 'Resource Use Efficiency of US Electricity Generating Plants During the SO<sub>2</sub> Trading Regime: A Distance Function Approach', Working Paper No. 17, National Institute of Public Finance and Policy, New Delhi, 2004. <http://www.nipfp.org.in/working%20paper/wp17.pdf>
27. Kumar, S., 'Productivity and Profitability Changes in US Electric Utility Plants under the SO<sub>2</sub> Allowance System', Working Paper, No.3, National Institute of Public Finance and Policy, New Delhi, 2003. <http://www.nipfp.org.in/working%20paper/wp03.pdf>
28. Kumar, S. and Khanna, M., 'Productivity Growth and CO<sub>2</sub> Abatements: A Cross Country Analysis Using the Distance Function Approach, Program in Environmental and Resource Economics (pERE), University of Illinois at Urbana-Champaign, Working Paper No. 29, 2002. [http://www.ace.uiuc.edu/pERE/papers/pERE\\_WP29.pdf](http://www.ace.uiuc.edu/pERE/papers/pERE_WP29.pdf)
29. Khanna, M., Kumar, S. and Anton, W., 'Environmental Self-Regulation: Implications for Environmental Efficiency and Profitability, Program in Environmental and Resource Economics (pERE), University of Illinois at Urbana-Champaign, Working Paper No. 26, 2002) [http://www.ace.uiuc.edu/pERE/papers/pERE\\_WP261.pdf](http://www.ace.uiuc.edu/pERE/papers/pERE_WP261.pdf)
30. Murty, M.N. and Kumar, S., 'Environmental and Economic Accounting for Indian Industry, Institute of Economic Growth, Delhi, Working Paper No. E212/2001. <http://www.ieg.nic.in/workmnm2.pdf>
31. Murty, M.N. and Kumar, S., Methodology for Estimating the Cost of Pollution Abatement: A Review of Literature, Institute of Economic Growth, Delhi, Working Paper No. E217/2001

#### **Conference Presentations**

1. 'Corporate Environmentalism in India: Determinants and Deterrence' CDE-CAGE Workshop on Political Economy and Development organized by CDE-DSE and Warwick University during September 29-30, 2016.
2. 'Globalization and Sustainable Development' Special Lecture, National Conference on 25 Years of Globalization and its Impact on the Indian Economy, organized by the Guru Gobind Singh Indraprastha University, New Delhi on 12 September 2016.
3. Guest Speaker at the Seminar on Green GDP, Shaheed Sukhdev College of Business Studies, organized at South Campus, University of Delhi, August 06, 2016
4. Chaired Technical Session on Biodiversity, Development, and Eradication of Poverty in International Conference on "Conservation of Biodiversity and Sustainable Energy: Law and Practice", 12th -14th February, 2016 at CLC, DU
5. Speaker at the plenary sessions on "Energy Security and Economic Development", JMI organized International Conference on "Energy, Economy and Sustainable Development: Opportunities & Challenges" on 16-17 February, 2016.
6. Presented on 'Climate, Global Economy and Policy' during the seminar on "New Perspectives on Trade and Environment in the era of Global Economic Turbulence" on 25-Feb-2016 in PGDAV College, Nehru Nagar, University of Delhi
7. Speaker at the Plenary Session on 'Environmental Transparency' at the 5<sup>th</sup> International Conference on Social Responsibility: the Ethical Dimensions, Organized by Ramanujan College in association with Baha'i House of Worship, March 12-13, 2016
8. Guest Speaker at the Seminar on Measuring Monetary Health Benefits from reduced Air Pollution in Delhi, Daulat Ram College, University of Delhi, March 19, 2016
9. Guest of Honour at the Valedictory Session in National Conference on "Make in India: Opportunities & Challenges of Indian Economy" on 21-22 March, 2016 organized by the P. G. Arya College, Panipat.
10. Valedictory Address, National Seminar on "Trade Negotiations under WTO: Issues before Developing Countries" held on 4-5 April

- 2016, Shyam Lal College, University of Delhi
11. Organized workshop titled "Embodied Carbon Trade and Trade Resistances: Evidence from South Asian Countries" held on August 13, 2015 at the Delhi School of Economics as a part of SANDEE project.
  12. Presented Paper titled "*Urbanization and Water Supply and Sanitation in India*" at the workshop on "*Sustainable water resource management: Perspectives from Europe and South Asia*" 28.-29.09.2015 organised by German House for Research and Innovation, New Delhi.
  13. 'Urban Diseases in India: Environmental Pollution and Congestion' NIPFP Conference on Papers in Public Economics and Policy, NIPFP, New Delhi, March 12-13, 2015
  14. "*Urbanization and Water Supply and Sanitation in India*", Workshop on the Comparative Study on Urbanization in the People's Republic of China and India 20-22 September 2014, Wuhan, PRC
  15. 'Urban Diseases in India: Environmental Pollution and Congestion', Workshop on the Comparative Study on Urbanization in the People's Republic of China and India 20-22 September 2014, Wuhan, PRC
  16. 'Relationship between Pollution and Urban Population Size' invited talk at ADB-FLCDS Workshop on Urbanization and the Poverty-Growth-Inequality Triangle School of Economics, Fudan University, Shanghai China, Oct. 31- Nov. 1, 2013
  17. 'Relationship between Pollution and Urban Population Size' invited talk at ADB-FLCDS Workshop on Urbanization and the Poverty-Growth-Inequality Triangle School of Economics, Fudan University, Shanghai China, Oct. 31- Nov. 1, 2013
  18. 'Climate Shocks and Production Efficiency' Invited Paper, Fourth National Research Conference on Climate Change held at IIT Madras, on October 26-27, 2013.
  19. 'Carbon Sensitive Productivity Growth, Climate and Institution' Invited Paper, DSE-TIES Golden Jubilee Conference, August 23-24, 2013.
  20. 'Complements or Substitutes: Assessing Renewable and Non-Renewable Energy in OCED Countries' Invited Paper, Third National Research Conference on Climate Change held at IISc Bangalore on November 3-4, 2012.
  21. 'Carbon Markets' and 'Economics of Climate Change' lectures delivered at the Administrative Staff College of India during a training program for the Mid-Career Officers of Indian Economic Services on Environmental Economics on March 20, 201
  22. 'Environmental Fiscal Reforms in India: Where and How' lecture delivered during the training program organized by the Madras School of Economics for Mid-Career Civil Servants of the Government of India on March 09, 2013.
  23. 'Panel Data Analysis' Lecture delivered during the training program on Quantitative Techniques for Researchers and Teachers organized by the Department of Management, Guru Gobind Singh Indraprastha University, New Delhi on January 20, 2013.
  24. 'Economics of Climate Change' Lecture delivered at CPDHE, University of Delhi during the Orientation Course for University and College Teachers on December 25, 2012.
  25. 'Complements or Substitutes: Assessing Renewable and Non-Renewable Energy in OCED Countries' Invited Paper, Third National Research Conference on Climate Change held at IISc Bangalore on November 3-4, 2012.
  26. 'Environmental Fiscal Reforms in India: Progress and Prospects' Invited Speaker on National Conference on "Environmental Fiscal Reforms in India: Where and How" organized by TERI, New Delhi during September 20-21, 2012.
  27. 'Carbon trading : concepts, issues and prospects with special reference to Bio-mass' lecture delivered during the Refresher training program on Role and Scope of Environmental Economics in Sustainable Development organized by the National Institute of Public Finance and Policy New Delhi for the officers of Indian Forest Services during September 10-14, 2012.
  28. Chaired Sessions on 'Governance and Development' and delivered invited presentation on 'Carbon Sensitive Productivity Growth, Climate Change and Institutions' during the International Conference on Public Policy and Governance organized by the Indian Institute of Science Bangalore and Public Affairs Centre Bangalore during September 4-6, 2012.
  29. 'Environmental Economics and Green Accounting' lecture delivered during the Refresher training program for officers of Indian Forest Services organized by Environmental Protection Training and Research Institute, Hyderabad during August 27-31, 2012 and Amity University, NOIDA December 07, 2012.
  30. 'Sustainable Development in India and Environmental Policy' Guest Speaker, Indo-Japan Dialogue Seminar "In Search of Sustainability" organized by Institute of Rural Research and Development, Gurgaon on April 27, 2012
  31. 'Valuation of Health Impacts of Air Pollution in India' Plenary Talk during the National Seminar on Environment-Health Linkages: Emerging Issues and Policy Resources, Jamia Millia Islamia, New Delhi, March 16-17, 2012.
  32. 'Economic Valuation of Forest Ecosystem Services' Invited Presentation, Regional Workshop on "Mainstreaming Ecosystem Services Approaches into Development: Application of Economic Valuation for Designing Innovative Response Policies" Bangkok 6-9 February 2012.
  33. 'Carbon Sensitive Productivity Growth, Climate Change and Institution' Invited Paper, Second National Research Conference on Climate Change held at IIT Delhi on November 5- 6, 2011.
  34. 'Environmental Degradation and Food Security' invited talk during the workshop organised by the United Nations Environmental Programme (UNEP) and GIST on "*Capacity-building in national planning for food security in the state of Punjab (India)*", on the 24th October 2011, at the India Habitat Centre, New Delhi
  35. 'In India on a Sustainable Development Path', Invited Plenary Session on Policy Reforms and Development, International Conference on Relevance of Policy Reforms on Development: Challenges before Emerging Economics, Jamia Millia Islamia, New Delhi, Feb 24-26, 2011
  36. 'Stock Prices of Clean Energy Firms, Oil and Carbon Markets: A Vector Autoregressive Analysis' Finalist for Medal, 12<sup>th</sup> GDN Annual Conference, Bogota, Colombia, Jan 13-15, 2011
  37. 'Substitutability and Non-separability among Water Pollutants: Evidence from India' to be presented at the 4<sup>th</sup> World Congress of Environmental and Resource Economists to be held at Montreal during June 28-July 2, 2010.
  38. 'Invited to speak and chair a session on 'Global Meltdown and India: Issues, Concerns and Challenges' by the FORE School of



- Management, Delhi on their foundation day conference held on November 30, 2009.
39. 'Compensation for Environmental Services and Intergovernmental Fiscal Transfers in India' Invited to speak at the DIVERSITAS-OSC2 at Cape Town (South Africa) during October 13-16, 2009.
  40. 'Trade Induced Technological Change: Analyzing Economic and Environmental Outcomes' Invited to speak at the workshop on 'Globalization and Environment' at the Kiel Institute of the World Economics (Germany) during September 24-25, 2009.
  41. 'Environment and Productivities in Developed and Developing Countries: The Case of Carbon Dioxide and Sulfur Dioxide' International Conference on 'Issues in Public Policy and Sustainable Development' organized by Indira Gandhi National Open University, New Delhi held during March 26-28, 2008, and the 7<sup>th</sup> International Conference of Japan Economic Policy Association held at Doshisha University, Kyoto, Japan during December 6-7, 2008.
  42. 'Energy Price-Induced and Exogenous Technological Change: Assessing the Economic and Environmental Outcomes' International Conference on 'Issues in Public Policy and Sustainable Development' organized by Indira Gandhi National Open University, New Delhi held during March 26-28, 2008.
  43. 'Measurement and Estimation of Resource Use Efficiency', International conference on 'Resource Use Efficiency and Productivity in Production, Marketing and Finance' held on 14<sup>th</sup> September 2007, Chiang Mai University, Thailand.
  44. 'Measuring the Performance of Water Service Provision in Urban India: Implications for Managing the Water Utilities,' presented during the conference on 'Sustainable Development and Livelihood' organized by Centre for Development Economics, Delhi School of Economics, University of Delhi (India) during February 6-8, 2007.
  45. 'Measuring Energy Price Induced Technological Change: A Global Analysis Using Directional Distance Function' to be presented at the 3<sup>rd</sup> World Congress of Environmental and Resource Economists, Kyoto (Japan) during July 3-7, 2006; the Asia-Pacific Productivity Conference (APPC) 2006 during August 17-19, 2006 at Seoul National University, Seoul (Korea); and 9th Biennial Conference of International Society of Ecological Economics, New Delhi (India) during December 15-19, 2006.
  46. 'Measuring Environmental Efficiency of Industry: A Case Study of Thermal Power Generation' Seminar presentation at Institute of Economic Growth Delhi on Feb 3, 2006, also presented at the 3<sup>rd</sup> World Congress of Environmental and Resource Economists, Kyoto (Japan) during July 3-7, 2006.
  47. 'Measurement of Environmental Efficiency & Productivity: A Cross Country Analysis' presented at the International Conference on Environment and Development, Jawaharlal Nehru University, New Delhi on April 7-8, 2005, also presented at International Conference on Economics of Poverty, Environment and Natural Resource Use, Wageningen, the Netherlands during May 17-19, 2006.
  48. 'Resource Use Efficiency of US Electricity Generating Plants During the SO<sub>2</sub> Trading Regime: A Distance Function Approach', seminar presented at the Indian Statistical Institute, Delhi Centre on March 05, 2004 and presented at the 13<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists, Budapest, Hungary during June 25-28, 2004, also presented at the 3<sup>rd</sup> World Congress of Environmental and Resource Economists, Kyoto (Japan) during July 3-7, 2006.
  49. 'Environmental Externalities in CGE Models: Emission taxes vs. energy taxes', presented at the 2<sup>nd</sup> Advanced Course in Computable General Equilibrium Modeling and the Environment, the abduus salam ICTP, Trieste, Italy, December 1-12, 2003, <http://users.ictp.it/~eee/workshops/smr1533/smr1533.htm#List>
  50. 'Productivity and Profitability Changes in US Electric Utility Plants under the SO<sub>2</sub> Allowance System' presented at the 12<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists to be held at Bilbao, Spain during June 28-30, 2003.
  51. 'Environmental Self-Regulation: Implications for Environmental Efficiency and Profitability' presented at EPA Workshop on Capital Market and Environmental Performance, held during October 25-27, 2002, Laguna Beach CA (USA) and presented at the 12<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists held at Bilbao, Spain during June 28-30, 2003.
  52. 'Productivity Growth and CO<sub>2</sub> Abatement: A Cross Country Analysis Using the Distance function Approach' presented at the CU Environmental and Resource Economics Workshop 2002, University of Colorado, Boulder (USA) during July 15-16, 2002, International Summer School on Innovation for Sustainable Development: Institutions, Incentives and Economic Policy, to be held at Seon, Germany during September 7-11, 2002 and International Conference on Climate Change and Environmental Policy, University of Illinois at Urbana-Champaign (USA), during November 11-12, 2002.
  53. 'Measuring Productive Efficiency of Water Polluting Industries in India: A Distance Function Approach' presented at the 2<sup>nd</sup> World Congress of Environmental and Resource Economists to be held during June 24-27, 2002 at Monterey, California, USA.
  54. 'Environmental and Economic accounting and the shadow prices of natural resources: some conceptual issues and a case study of industrial water pollution in India' presented at the Program in Environmental and Resource Economics Workshop, University of Illinois at Urbana-Champaign on April 30, 2002, and the Second World Congress of Environmental and Resource Economists to be held during June 24-27, 2002 at Monterey, California, USA.
  55. Win-Win Opportunities and Environmental Regulation: Testing of Porter Hypothesis for Indian Manufacturing Industries, Paper presented at the 2<sup>nd</sup> Biennial conference of the Indian Society of Ecological Economics, held at Indian Institute of Forest Management, Bhopal, during December 18-20, 2001, and at Program in Environmental and Resource Economics Workshop, University of Illinois at Urbana-Champaign on October 1, 2002.
  56. 'Environmental and Economic Accounting for Indian Industry', Workshop at the Institute of Economic Growth, Delhi, on March 16, 2001.
  57. 'Measuring productivity of Natural Capital' Paper presented at the Conference to honor Professor K. L. Krishna at Delhi School of Economics, during December 18-20, 2000.
  58. 'Measuring Cost of Sustainable Industrial Development in India: A Distance Function Approach' presented at the 2<sup>nd</sup> International Conference on Environment and Development at Swedish Royal Academy of Sciences, Stockholm, Sweden during September 5-8, 2000.
  59. 'Estimation of the Maintenance Cost of Pollution Abatement by the Water Polluting Industries in India: A Distance Function Approach'

- at Institute of Economic Growth Delhi on 7 January 2000.
60. 'A Methodology for the Valuation of Industrial Pollution Abatement: A Case of Thermal Power Sector in India' Seminar presented at Centre for Economic Studies and Planning, Jawaharlal Nehru University, New Delhi on August 10, 1999 and at the Centre for Development Economics, Delhi School of Economics on September 15, 1999.
  61. 'India's Environmental Policy and Market Based Instruments' paper presented at the University-Industry Linkages at Guru Jhambheshwar University Hisar during December 15-16, 1996.
  62. 'Environmental Economics: Some Conceptual Issues' Keynote presented at the Environment and Economics Seminar of Centre for Science and Environment during June 29-30, 1996.
  63. 'Deforestation, Agricultural Productivity and Forest Stock: An Inter-State Study' paper presented at the Environment and Economics Seminar organized by Centre for Science and Environment during June 29-30, 1996.
  64. 'Deforestation, Agricultural Productivity and Forest Stock,' Proceedings of the Indian Econometric Society, 32<sup>nd</sup> Annual Conference, pp. 27-39, 1996.

#### **Public Service / University Service / Consulting Activity**

- University nominee, Governing Body, Mata Sundri College for Women, University of Delhi since February 2018
- Director (Acting), Agricultural Economics Research Centre, University of Delhi, since 01 September 2016 to 31 May 2017
- Government of India Nominee, 19<sup>th</sup> Council, Institute of Cost Accountants of India, since December 2015.
- Council Member, Centre for Development Economics, Delhi School of Economics, University of Delhi since August 2015
- Vice-Chancellor's nominee, Governing Body, Ramanujan College, University of Delhi since August 2014
- Vice-Chancellor's nominee, Board of Research Studies, Faculty of Management Studies, University of Delhi, since 02 August, 2014
- Vice-Chancellor's nominee, Board of Post Graduate Studies in Economics, Kurukshetra University, Kurukshetra since July 2013.
- Vice-Chancellor's nominee, Departmental Research Committee, Department of Economics, University of Delhi, since August, 2012
- Vice-Chancellor's nominee and Treasurer, Governing Body, School of Open Learning (SOL), University of Delhi since July 2012 to December 2016
- Treasurer, Governing Body, Kalindi College, University of Delhi, August 2011 to December 2012, and Delhi University Vice-Chancellor's nominee, Governing Body, Kalindi College, since August 2011.
- Member, Governing Body, *Aravali* Hostel, South Campus, University of Delhi since June 2011.
- Head, Department of Policy Studies, TERI University since May 15, 2009 to November 30, 2010.
- Program Coordinator, MA (Public Policy and Sustainable Development), TERI University, New Delhi, May 2007 to May 2008.
- Coordinator, Working Papers Series, NIPFP, New Delhi, April 2004 to May 2005.
- Course Director, Training Program for the Probationers of Indian Audit and Accounts Services in Public Finance, National Institute of Public Finance and Policy, New Delhi, during Feb. 9-28, 2004.

#### **Professional Societies Memberships**

- The Indian Econometric Society
- International Society of Ecological Economics
- Environment, Health and Development Network

#### **Projects (Major Grants / Collaborations)**

1. Embodied Carbon Trade and Trade Resistances: Evidence from South Asian Countries, Sponsor: South Asian Network of Development and Environment Economics, Amount: Rs. 10 lakhs (April 2014 to September 2015).
2. Environmental Fiscal Reforms in India: Where and How?, Project for GTZ and Ministry of Environment and Forests, Government of India, 2010-2012, Rs. 8292100 (Co-authors Shiipi Kapur et al.)
3. Economics of Sanitation Initiative – Sanitation Options Study (India), Project for the World Bank, 2009-10, Rs 7628638 (Co-authors Mr R. Johri et al).
4. Ecosystem Services and Poverty Alleviation in India-Hindukush Region: A Situation Analysis, Project for NERC, DIFD and ESRC (UK), 2007-08, £2,50,000 [in collaboration with SWIMMER (University of Liverpool, U.K.), IUCN (Sri Lanka), BRAC (Bangladesh) and SDPI (Pakistan)].
5. Relative Environment Economics of coal and other fossil based fuels for power generation and policy options for India, Project for Petroleum Federation of India, 2007, Rs 1500000.
6. Ecological Footprint: Establishing a tool to measure and manage urban energy use in India and China (Phase I), Project for Veolia Environment Institute, Paris 2007-08, US\$ 110347.
7. Central Government Subsidies in India (Project for the Ministry of Finance, Government of India), National Institute of Public Finance and Policy, New Delhi, 2004 (Co-authors Dr. Tapas Sen and Dr. N. J. Kurien) formed the basis of the Discussion Paper on "*Central Government Subsidies in India: A Report*" **which was placed in the Parliament by the Ministry of Finance, Government of India on December 23, 2004.**
8. Long term Impacts of Overall Imposts on the Exploration and Production of Crude Oil and Natural Gas; National Institute of Public Finance and Policy, New Delhi, (Project for the Ministry of Petroleum and Natural Gas, Govt. of India); 2006 (Co-author T. K. Sen)
9. Differential Tax Structure Linked to Energy Efficiency of Cars; The Energy and Resource Institute, New Delhi (Project for the Ministry of Finance, Govt. of India) 2005 (Co-authors Ranjan Bose et al.)

#### **Other Details**

##### **Referee to Journals, Institutions (Research Proposals/Reports), & Conferences**

- Sustainability, American Journal of Agricultural Economics, Indian Economic Review, Journal of Economic Surveys, Statistical Methods and Applications, International Journal of Business and Economics, Environment and Development Economics, Journal of Productivity Analysis; Journal of Environmental Economics and Management; Environmental and Resource Economics; Ecological Economics; The

Energy Policy; The China Economic Review; The Energy Journal; Journal of Environmental Management; Encyclopedia of Earth (online), Energy Studies Review; Environmental Economics and Policy Studies; Resource, Energy and Development; International Journal of Regulation and Governance; Journal of Developing Areas

- South Asian Network on Development and Environmental Economics (SANDEE), International Water Management Institute (IWMI), The Energy and Resource Institute (TERI), New Delhi, Japan International Cooperation Agency (JICA).
- 7<sup>th</sup> International Conference of Japan Economic Policy Association held at Doshisha University, Kyoto, Japan during December 6-7, 2008, 2<sup>nd</sup> World Congress of Environmental and Resource Economists held at Monterey, California, USA during June 24-27, 2002, 12<sup>th</sup> Conference of the European Association of Environmental and Resource Economists held at Bilbao, Spain during June 28-30, 2003, 2<sup>nd</sup> International Conference on Environment and Development held at Swedish Royal Academy of Science, Stockholm, Sweden during September 5-8, 2000

**Certificate Courses Attended**

- Attended 2<sup>nd</sup> Advanced Course in Computable General Equilibrium Modeling and Environment, the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, December 1-12, 2003
- Attended the Faculty Up-gradation Program in Environmental Economics, Institute of Economic Growth, Delhi, November 1-29, 2000
- Attended Refresher Course in Economics at Academic Staff College, Jawaharlal Nehru University, New Delhi, during January 2- 29, 1999
- Attended Orientation Course in Social Sciences at Academic Staff College, Jawaharlal Nehru University, New Delhi, during April 4-May2, 1997

**Research Supervision**

*Ph D*

1. Rakesh Kumar Jain, Investment Strategy and Climate Change
2. *Pritika Dua*, Adoption of Environmental Management System and Financial Performance: An Analysis of Indian Firms (submitted)
3. Prerna Prabhakar: Carbon embodies trade and trade restrictions (awarded)
4. Shivananda Shetty: Corporate Environmental Management (awarded)
5. S K Joshi: Intergovernmental Fiscal Transfers and the Environment (Awarded in 2011, TERI University)

*M. Phil.*

1. Aditi Wadhwa: Government Policies and Their Impact on the Productivity of Fertilizer Industry (Tau Devlal University, 2008)

(Signature of Faculty Member)

(Signature & Stamp of HOD)