

## Professor(Dr.) Jyoti K Parikh

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Professor Jyoti K Parikh is Executive Director of Integrated Research and Action for Development (IRADe), New Delhi. She was a **Member of the Prime Minister's Council on Climate Change –India and is a recipient of Nobel Peace Prize awarded To IPCC authors in 2007.** She served as the senior professor and Acting Director of Indira Gandhi Institute of Development Research (IGIDR), Mumbai 1986-03. IIASA, Austria for 8 years (1980-86, 76-78) and Planning Commission, as senior energy consultant at New Delhi (1978-80).

She has served as energy consultant to the World Bank, the U.S. Department of Energy, EEC, Brussels and UN agencies such as UNIDO, FAO, UNU, and UNESCO, Environment Consultant to UNDP, World Bank and so on. She worked as an advisor to various ministries for Gov. of India

She obtained her M.Sc. from University of California, Berkeley, in 1964 and Ph.D. in Theoretical Physics from University of Maryland, College Park in 1967. She has guided 12 Ph.D. theses in energy, environment and climate change and given lectures in more than 40 countries around the world.

Publications include nearly 200 project research papers and 25 books and monographs in the area of **energy economics, climate change and modeling, energy technology assessment, energy access and gender, power sector, sustainable urban developments, environment economics, natural resource management, environment and climate change.**

She has guided Sixteen Ph.D./Masters theses in energy, environment and climate change area and given lectures in more than 40 countries around the world. The topics ranged from vulnerability and adaptation of agriculture, forestry, power sector, construction sector, and carbon emission baselines for power, transport, cement and steel sector.

## PERSONAL

### Date of Birth

March 20, 1941

### Address (IRADe)

Executive Director, Integrated Research and Action for Development ,  
C 50 Chota Singh Block, Khelgaon  
New Delhi 110049. India  
EMAIL: jparikh@irade.org

## ACADEMIC BACKGROUND

Year & Degree	Place
1967, Ph.D., Theoretical Physics	University of Maryland, College Park Md. USA
1963, M.Sc., Physics and Mathematics	University of California, Berkeley, CA, USA
1961, B.Sc. Physics and Mathematics	Gujarat University, Ahmedabad.
1957, S.S.C.E. Board Matriculation Exam.	Gujarat, India, (First in the state – 45000 students)

## PROFESSIONAL BACKGROUND

Year	Institution	Remarks
Aug 2003 to till date	Integrated Research and Action For Development	<u>Executive Director</u> <ul style="list-style-type: none"><li>• Energy and Power Systems, Energy Modelling</li><li>• Environment and Climate Change Policy expert</li><li>• Sustainable Urban Development and Consumption Patterns</li><li>• Natural Resources Accounting and Valuation</li><li>• Capacity building in Environmental Economics</li><li>• Networking on leading organizations, think tanks, multilateral and multi country institutions and organization</li><li>• Resource Mobilisation and project management , institutional setup</li></ul>
June 1986 to July 2003	Indira Gandhi Institute of Development Research, Bombay.	<u>Acting Director and Senior Professor</u> ; carried out work on: <ul style="list-style-type: none"><li>• Rural energy, environment and health</li><li>• Sustainable Development and Consumption Patterns</li></ul>

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		<ul style="list-style-type: none"> <li>• Climate Change</li> <li>• □ Natural Resources Accounting and Valuation</li> <li>• Guiding Ph.D. Students</li> <li>• Capacity building in Environmental Economics</li> </ul>
Sept. 1995 to Sept 1996	United Nations University/ Institute of Advances Studies	<u>Visiting Professor</u> , set up Env. Resources Project and guided international research students
June 1980 to 1986	IIASA, Laxenburg, Austria	<u>Research Scholar</u> , Resources and Environment for countries in Asia, Africa and Latin America. Energy-agriculture interactions and other topics, decentralized industries and capital goods for energy.
Sept. 1978 to Sept 1980	Planning Commission, New Delhi	<u>Senior Consultant</u> , Energy Demand Model for India.
May 1976 to Sept. 1978	International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria.	<u>Research Scholar</u> , Energy Systems; worked on energy planning strategies for developing countries in system analytic framework, macro-economic models and for renewable energy and global energy models.
1974	Dept. of Science and Technology; Office of Environmental Planning; Govt. of India, New Delhi.	<u>Specialist</u> ; worked on problems of environmental planning and monitoring environmental information system; - carried out tasks of science and engineering research council which assessed collaborative research projects in the new frontier areas such as bio-medical engineering, environmental standards etc. by visiting institutions; - also identified joint technical programs with other countries; - represented Government of India at the International Conference of Women Scientists at Cracow, Poland, IWY (1975).

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## International Appointments

- Board Member of the journal “Current Alternative Energy (CAE), Dec 2020
- Member of the Global Agenda Council - World Economic Forum on Decarbonizing Energy (2014-16)
- Member of the Research Advisory Committee of the **Institute for Global Environmental Strategies (IGES)** Japan, April 1, 2002 till March 31, 2005.
- Convening Lead Author for the chapter on “Carbon Regulation for **Millennium Ecosystem Assessment**”-2002 till 2005.
- Technical Advisory Committee (TAG) for Energy Trust Funds Programmes of the **World Bank** (2003) that include Energy Sector Management Programme (ESMAP), Asia Technical Assistance in Energy (ASTAE), Africa Renewable Energy Initiative (AFREN), Africa, 2002-2004.
- Advisory Board of **Tyndall Center for Climate Change**, University of East Angala, Norwich, UK, 2001-2004.
- International Steering Committee of **ENERGIA**, Network on Gender and Environment, Nederland, 2002-2004.

- Scientific and Technical Advisory Panel (STAP) to Global Environment Facility (GEF) – 1995-1998.
  - ✓ Inter-governmental Panel for Climate Change (IPCC)
  - ✓ Convening lead author for the Second Assessment (1993-95)
  - ✓ Reviewing editor for the Third Assessment (1999-2000)
  - ✓ Reviewing editor for the SRES (1998-99)
- Member of the Advisory Panel on Biodiversity for Executive Director, United Nations Environment Programme, 1994-1996.
- START (A Global Change System for Analysis, Research and Training) Scientific Steering Committee (SSC), USA - from May 1997.
- Member of the Steering Committee and part of the management of the on. EU-LDC Network Foundation, Netherlands Hq., 2000.

## **National Appointments**

- Member, Committee on Distribution Reforms (DRUM) (2004), Ministry of Power, New Delhi.
- Member of Prime Minister's Council on Climate Change –India
- Member, Climate Change and Insurance Task Force (2004), Ministry of Environment and Forests, New Delhi.
- Member, Committee for CDM projects Ministry of Non-Conventional Energy Sources, New Delhi, 2001-2003.
- Member, Advisory Group on Energy and Environment, Ministry of External Affairs, Govt. of India, 2001.
- Member, Major and Medium Irrigation Working Group Programme for the Formulation of the Tenth Five Year Plan (2002-2007), Planning Commission, Delhi, 2000.
- Member of Advisory Panel on Global Environmental Issues set up by the Ministry of Environment and Forests, Government of India, 1996-1998
- Advisory Committee on AIJ Issues, Ministry of Environment and Forests, 1997-2000.
- Member, Advisory Committee, Central Electricity Regulatory Commission (1998-2000).
- Member, Tariff Policy Committee, Uttar Pradesh Electricity Board (1989).
- Convener of Sixth National Power Systems Conference held in 1990.
- Consultant for Kerala State Electricity Board.
- Senior Consultant for the World Bank study on long term issues for Power Sector in India and has written a number of papers in power systems for IEEE transactions for power systems.
- Non-official part-time director on the Board of Indian Renewable Energy Development Agency Ltd. (IREDA) by the Government of India in the Ministry of Non-Conventional Energy Sources (MNES) in August 2001.
- Advisory Group on Energy and Environment, Ministry of External Affairs, Government of India, 2001.
- Member of Advisory Panel on Global Environmental Issues set up by the Ministry of Environment and Forests, Government of India, 1996-1998
- Advisory Committee on AIJ Issues, Ministry of Environment and Forests, 1997-2000.
- Vice President, Executive Committee of Indian Chapter of Society for Ecological Economics, 2000-2001
- Member of editorial boards of International Journal, Utilities Policy and Energy, The International Journal and reviewer for many other journals.

## **National Project Coordinator:**

- Chairperson of EERC (Environmental Economics Research Committee) of EMCaB Project of the World Bank, 1997-2003 distributing US\$ 1.5 million for 56 projects across India in Universities, NGO and Research Institutes.

- Gender, Pollution and Health: Conducted one of the largest studies that for the first time captures pollution, health, energy, water, housing and socio-economic characteristics for 14000 households in 4 states of India in 12 districts and 100 villages. It involved surveyors, medical doctors, pollution measurement and stakeholder's perceptions. Massive (statistical) analysis exercise is underway.
- Capacity Building for Environmental Governance (1995-2000): UNDP project had four major focal areas: Air Quality; Water Quality; Community Land Regeneration and Biodiversity within the overall framework of sustainable development. It involved government, academic and research organisation, stakeholders, industries, and pollution control boards. Involved 15 organisations across India, 20 workshops - regional, national and international. More than 1000 persons were involved.

## **AWARDS/HONOURS/RECOGNITIONS:**

- Nobel Peace Prize awarded to IPCC authors in 2007
- Women achievers award – 2000
- Special energy award by IBPL Urja Research Foundation on the occasion of 50 years of independence of India (1998).
- Golden Jubilee for India's independence award for energy efficiency - 1997
- Second prize IFORS in "Operations Research for development" (1996).
- Bhasin Award for Energy and Environment - 1995.
- Boutros Ghali Award for 1995 instituted by the Foundation for United Nations given at the United Nations University (UNU).
- Gold Medal from the Systems Society of India for energy and environment - 1988,

## **Books and Monographs**

### *Environment:*

1. **Reconciling Environment and economics** eds Jyoti Parikh and T Raghuram IGIDR publication (2003)
2. **Rural energy and Health Impact**, Project report of Tamilnadu, UP, Rajasthan, H.P. (EERC report )
3. **Sustainable Management of Wetlands**, eds Jyoti Parikh and Hemant Datye, Sage Publishers, New Delhi. (2003)
4. **Environmental Governance Series on (1) Clean Water, (2) Sustainable Wetlands, (3) Sustainable Land and Forests Regeneration, and (4) Clean Air**, Jyoti K. Parikh and Kirit S. Parikh (Editors). 1999.
5. **Accounting and Valuation of Environment, Volume II, Case Studies from the ESCAP Region**, Jyoti K. Parikh and Kirit S. Parikh, Economic and Social Commission for Asia and Pacific Region, United Nations, New York, 1998.
6. **Accounting and Valuation of Environment, Volume I, A. Primer for Developing Countries**, Jyoti K. Parikh and Kirit S. Parikh, Economic and Social Commission for Asia and Pacific Region, United Nations, New York, 1997.
7. **Sustainable Regeneration of Degraded Lands through people's participation**, Edited by Jyoti K Parikh and B. Sudhakara Reddy, Tata McGraw Hill Publishing Co. Ltd., New Delhi, 1997.
8. **Climate Change and North-South Cooperation: Indo-Canadian Cooperation in Joint Implementation**, Tata McGraw Hills Publishing Co. Ltd., New Delhi, 1997.
9. **Environmentally Sound Energy Efficient Strategies: A Case Study of the Power Sector in India**, Jyoti Parikh, J.P. Painuly and K. Bhattacharya, Report submitted to UNEP Collaborating Centre on Energy and Environment, RIS0, Denmark, 1996.

10. **Structural Transformation Processes towards Sustainable Development in India: Macro-economic Scenarios and Analysis of Transport and Construction Sectors**, Jyoti K. Parikh, Manoj K. Panda, R. Ramanathan, Piyush Tiwari and N.S. Murthy, Report prepared for INFRAS, Zurich, 1996.
11. **Trade and Environment Linkages: A Case Study of India**, Jyoti K. Parikh, V.K. Sharma, Upal Ghosh and Manoj K. Panda, Report prepared for UNCTAD, 1995.
12. **Consumption Patterns: The Driving Force of Environmental Stress**, Jyoti Parikh, Kirit Parikh, Subir Gokarn, J.P. Painuly, Bibhas Saha and Vibhooti Shukla, Report prepared for the UNCED Secretariat, 1991.
13. **Sustainable Development in Agriculture : Resources, Technology, Environment**, Editor Jyoti K Parikh, Dodrecht, Netherlands. Martinus Nijhoff Publishers. (Kluwer Publishing House.) 1988.

### ***Energy:***

1. **TIFAC (2006)**, Jyoti k. Parikh & Walia Amit, “**Techno Economic Assessment of Bioenergy in India**”,Tifac, Ministry of Science & Technology, Govt. of India, New Delhi.
2. **PETROFED (2005)**, “**Fueling India’s Growth: Vision 2030**”, Petroleum Federation of India, New Delhi, India.
3. **PETROFED (2005)**, “**Fuel Forecasting Study: Past Trends and Scenarios 2011 - 2012** ”, Petroleum Federation of India, New Delhi, India.
4. **Energy Models: Beyond 2000**, Jyoti K. Parikh, Tata McGraw Hills Publishing Co. Ltd. New Delhi 1996.
5. **Environmentally Sound Energy Efficient Strategies: A Case Study of the Power Sector in India**”, Jyoti K. Parikh, J.P. Painuly and K. Bhattacharya, 1995.
6. **Environmentally Sound Energy Development Strategies for the state of Maharashtra**”, Jyoti K. Parikh, J.P. Painuly and K. Bhattacharya, 1995.
7. **Planning for Demand Side Management (DSM) Options in the Electricity Sector**, Jyoti K Parikh, B. Sudhakara Reddy and Rangan Banerjee, Tata McGraw Hills Publishing Co. Ltd., New Delhi. 1994.
8. **Power Systems for 2000 & Beyond**, Chief Editors Prof M.V. Hariharan, Prof Jyoti Parikh. Proceedings of the Sixth National Power Systems Conference, IGIDR, Bombay, June 4-7, 1990.
9. **Superconductors in Power Systems**, Jyoti Parikh, Madhuri Pai. Allied Publishers Limited, New Delhi. 1990.
10. **Modeling Energy and Agricultural Interactions: An Application to Bangladesh**, IIASA RR-85-7. J.K. Parikh and G. Kromer.
11. **Modeling Energy Demand for Policy Analysis**, Government of India, Planning Commission, New Delhi. Also IIASA PP-81-8. Summary presented at study week on "Energy and Mankind" organized by Pontificia Academia Scientiarum of Vatican at Vatican Academy. Proceedings edited by A. Blanc Lapiere. 1981.
12. **Energy Systems and Development; Constraints, Demand and Supply of Energy for Developing Countries**, Jyoti Parikh, Oxford University Press, Delhi, 1980.
13. **Simulation of Macro-economic Scenarios for India to Assess Energy Demand (SIMA) (1979)**, J. Parikh and K. Parikh, IIASA Workshop on Energy Strategies, Conception and Embedding (May 1977), IAEA Advisory Group Meeting on Energy Demand, IIASA RR-79-15, (October 1977).

### ***Urban Development and Climate Change:***

14. **Climate Resilient Urban Development: Vulnerability Profile of Twenty Indian Cities (2013)**, Jyoti Parikh, Priyank Jindal. Geeta Sandal, IRADe

### **Publications/Articles in Journals and Books**



## **A. *Environment: Local and Global Issues***

### **A.1 *Poverty and Environment***

1. Parikh, J. "Poverty - Environment - Development nexus" *International Journal of Global Environmental Issues* 2 (3-4) ,pp.344,2002
2. "Poverty and Sustainable Development", Jyoti K. Parikh and Kirit S. Parikh, UNU/IAS Working Paper No.6, 1996.
3. "Poverty, Environment and Development Nexus", Jyoti K. Parikh, A Chapter in a forthcoming book.

### **A.2 *Land Resources***

4. "Revisiting Carbon Sequestration for Joint Implementation", Jyoti Parikh and B. Sudhakara Reddy, in P.W.F. Riemer, A.Y. Smith and K.V. Thambimuthu (eds.), *Greenhouse Gas Mitigation*, Elsevier Science Ltd., 1998.
5. "Plantation Programme through People's Participation", B. Sudhakara Reddy, Jyoti K. Parikh and P.V. Srinivasan, *Biomass and Bioenergy*, (Forthcoming).
6. *Sustainable Regeneration of Degraded Lands*, S. Reddy and J. Parikh, Tata McGraw Hill Publishing House, New Delhi, 1997.
7. Vijay Laxmi, and Jyoti Parikh (1997). "Land Regeneration Programmes: lessons from success and failures". in *Sustainable Regeneration of Degraded Lands*, edited by Jyoti Parikh and Sudhakara Reddy, Tata McGraw-Hill.

### **A.3 *Gender, Pollution and Health***

8. Jyoti Parikh (2011), "Hardships and health impacts on women due to traditional cooking fuels: A case study of Himachal Pradesh,India" Special issue edited by W.Foell, S. Pachauri, D Spreug and H. Zeuriffi *Energy Policy*, Vol.39 Issue : 12.
9. Parikh J. & Sharma S. (2005), "The Energy, Poverty, Health and Gender Nexus – A Case Study from India", *Newsletter of the Network for Gender and Sustainable Energy*, Vol. 8 (2).
10. Jyoti Parikh (2004), "Gender and Environment: Missing Link in The Rural Development of India", National Council of Applied Economic Research, New Delhi, India.
11. "Biofuels, Pollution and Health Linkages: A Survey of Rural Tamilnadu", J. Parikh and V. Laxmi *Economic and Political Weekly*, November 18-24, pp. 4125-4137, 2000.
12. "Paradigm Shift to Address Gender Issues in Energy Policy", Jyoti Parikh, *Proceedings of the International Senior Executive Seminar on Renewable Energy: Education and Training*, Bangkok, Thailand. February 1999

### **A.4 *Sustainable Energy Development***

13. Parikh J. (2004), "Trade, Environment and Sustainable Development", Training Session on Capacity Building: Environment, Trade and Sustainable Development, November 24, 2005, New Delhi, India.
14. "Economic and Environmental Impacts of Demand Side Management Programmes", B. Sudhakara Reddy and Jyoti K. Parikh, *Energy Policy*, 25(3), 1997.
15. *Urbanization, Energy Use and Greenhouse Effects in Economic Development*. (with Vibhooti Shukla), *Global Environmental Change*, 5(2), 1995. IGIDR - RP No. 196, 1995.

### **A.5 *Solid Waste Management***

16. Yedla, S.,Parikh, J.K. "Development of a purpose built landfill system for the control of methane emissions from municipal solid waste" *Waste Management* 22 (5) ,pp.501,2002
17. Yedla, S.,Parikh, J.K. "Economic evaluation of a landfill system with gas recovery for municipal solid waste management: A case study" *International Journal of Environment and Pollution* 15 (4) ,pp.433,2001



18. Sudhakar, Y. and Jyoti K. Parikh, "Valuation of LFSGR for the Management of MSW: A Case Study", Proc. Sixth International Workshop of Environmental Technology Research Network in the Asia-Pacific Region" being held during 25-26 November 1999 in Japan.

## **B. Global Environmental Issues: Climate Change**

19. Parikh, J.,Baruah, L. " Common but differentiated responsibilities among Non-Annex i countries of UNFCCC "Economic and Political Weekly 47 (45) ,pp.67,2012  
20. Parikh, J.,Ghosh, P.P. " Energy technology alternatives for India till 2030 "International Journal of Energy Sector Management 3 (3) ,pp.233,2009  
21. Parikh, J.,Panda, M.,Ganesh-Kumar, A.,Singh, V. " CO2 emissions structure of Indian economy "Energy 34 (8) ,pp.1024,2009  
Parikh, J. " India and climate change: Mitigation, adaptation, and a way forward "Global warming: Looking beyond Kyoto ,pp.205,2008

### **B.1 Climate Convention and Policy Instruments**

22. Parikh, K.S.,Parikh, J.K. " Strengthening India's position in climate change negotiations "Economic and Political Weekly 52 (10) ,pp.72,2017  
23. Jyoti Parikh (2007), "Developing partnerships across developing and developed countries: An agenda for inclusion of poor", published by Climate Action (brought out for COP meeting at Bali by UNEP and SDI), pp. 52-65.  
24. Jyoti Parikh (2007) Climate Change :A perspective from the developing world, centre for Economic Development (CEDA), Australia p 52-65  
25. Purohit P. and J. Parikh (2005), "CO<sub>2</sub> Emissions Mitigation Potential of Bagasse Based Cogeneration in India", ISES Solar World Congress 2005, August 8-12, 2005 Orlando, Florida USA.  
26. Noble I., J. Parikh and R. Watson (2004), "Responses to Climate Change", Chapter in Millennium Assessment , Chapter 13, Working Group report on responses, ICELAND Press, pp 373-400  
27. Parikh J. and K. Parikh (2004), "Kyoto Protocol: The Indian Perspective", International Review of Environmental Strategies, Vol. 5(1).  
28. Weyant J., J. Parikh (2004), " India, Sustainable Development and the Global Commons", ICFAI Publication (Edited Book)  
29. J. Parikh and K. Bhattacharya (2003) South Asian Energy and Emissions perspectives for 21<sup>st</sup> Century ,IEW workshop at IIASA ,Austria  
30. Please, Stay with the Climate Change Convention, Jyoti Parikh, The Economic Times, Mumbai, June 7, 2001.  
31. Linking Technology Transfer with Clean Development Mechanism (CDM): A Developing Country Perspective, Jyoti K. Parikh, Journal of Global Environment Engineering, Vol. 6, pp. 1-12, 2000.  
32. "Free Ride through Delay: Risk and Accountability for Climate Change", Jyoti Parikh and Kirit S. Parikh, Journal of Environment and Development Economics, Vol. 3 No. 3, pp. 384-389, 1998.  
33. Climate Change, North-South Co-operation and Collective Decision-Making Post-Rio, Jyoti Parikh, P.G. Babu and K.S. Kavi Kumar, Journal of International Development, Vol.9, No.3, 403-413, 1997  
34. North-South Cooperation in Climate Change through Joint Implementation. Jyoti Parikh, International Environmental Affairs. 7(1), Winter 1995. IGIDR-RP No.142, 1995.  
35. "Decision Making Framework to Address Climate Change", Jyoti Parikh, P.G. Babu and K. Parikh, in Steps Towards a Decision Making Framework to Address Climate Change, G. Pillet and F. Gassmann (Eds.) Paul Scherrer Institute, Switzerland, 1994.  
36. "North-South Issues for Climate Change", *Economic and Political Weekly*, Page No. 2940-2943, November 5-12, 1994.  
37. Consumption Patterns: Economic and Demographic Change, Encyclopedia of Global Environmental Change, Volume 3, Causes and Consequences of Global Environmental Change, Edited by Professor Ian Douglas, Editor-in-Chief, Ted Munn, John Wiley & Sons, Ltd., Chichester, 2002, pgs 249-252.

### **B.2 IPCC Related Issues**

38. "The Emperor Needs New Clothes: Long-Range Energy-Use Scenarios by IIASA-WEC and IPCC", *Energy*, Vol. 23, No. 1, pp. 69-70, 1998.

39. "Decision Making Framework to Address Climate Change", K. Arrow, J. Parikh, J. Pillet, K.S. Kavi Kumar and P.G. Babu, Chapter 2 of IPCC WG III, Second Assessment Report, Cambridge University Press, Cambridge, U.K. 1996.
40. "Decision Making Framework for Climate Change", J. Parikh and K. Arrow in Poverty, Environment and Economic Development, N.S.S. Narayana and A. Sen (Eds.), Interline Publications Pvt. Ltd., Bangalore, India, 1996.
41. "Decision Making Framework for Addressing Climate Change", K.J. Arrow, J. Parikh, G. Pillet, et al., in J. P. Bruce, H. Lee and E.F. Haites (Eds.) Climate Change 1995: Economic and Social Dimensions of Climate Change, Cambridge University Press, 1996.
42. IPCC Response Strategies Unfair to the South, Nature, Vol.360, p.507-508, 10th December 1992,

### **B.3 GEF Related Issues**

43. "Technology Transfer for GHG Reduction: A Framework and Case Studies for India", Jyoti Parikh and Vinish Kumar Kathuria, Presented at the STAP workshop, Amsterdam, The Netherlands, Jan. 19-20, 1997.
44. Promoting Faster Diffusion of Energy Efficiency with Type 1 Projects, J. Parikh and R. Banerjee, *International Journal of Environment and Pollution*, Vol. 4, Nos. 1/2, 1994.
45. "The GEF Incremental Costs and the Paradigm of Partnership", Jyoti Parikh, *The Bulletin, The Centre for our Common Future*, March 1993.

### **B.4 National Studies in Climate Change**

46. Nag, B., Parikh, J.K. " Carbon emission coefficient of power consumption in India: Baseline determination from the demand side "Energy Policy 33 (6) ,pp.777,2005
47. Parikh J. and K. Parikh (2011), India's Energy Needs and Low Carbon Options, Energy, Vol. 36, Issue 6, pp. 3650-3658.
48. Parikh J., M. Panda, A. Ganesh-Kumar and V. Singh (2009), "CO2 emissions structure of Indian Economy" by, Energy, Vol-34, pp 1024-1031.
49. Jyoti Parikh (2007), India and Climate Change: Mitigation, adaptation and a way forward, Global Warming- Looking beyond Kyoto Edited by E. Zedillo, Yale University, Conn. USA
50. Jyoti Parikh and Chandra Kiran B. Krishnamurthy(2005) , "Economic Impact of Carbon Emission Restrictions: The Case of India" A chapter in a volume honoring Professor N K Bansal
51. MOEF (2004), "India's Initial National Communication to the United Nations Framework Convention on Climate Change", Ministry of Environment and Forests, Government of India, New Delhi, India.
52. India's Efforts to Minimise GHG Emissions: Policies, Measures and Institutions, Jyoti Parikh, article book by the resources for future", by Oxford University Press.
53. Jyoti Parikh (2000), *What is India Doing to Minimise GHG Emissions?: Policies, Programmes and Institutions*, in P. Narasimha et al (eds.), IGBP in India 2000: A Status Report on Projects, Indian National Science Academy, New Delhi, 2000.
54. Jyoti Parikh (1997), "India's efforts to reduce GHG emissions: Policies, Programmes and Institutions", Presented at Bangladesh and at COP3 Kyoto. IGBP.
55. "Indicators of Carbon Emission Intensity from Commercial Energy Use in India", Barnali Nag and Jyoti Parikh, *Energy Economics*, Vol. 22, pp. 441-461, 2000.
56. "Sustainable Development of India: Scenarios for 2020 for poverty Alleviation and Technological Changes", J. Parikh and N.S. Murthy. Paper prepared for UNDP, January 1997.
57. "Economic Growth, Energy Demand and Carbon Dioxide Emissions in India: 1990-2020", N. S. Murthy, Manoj Panda and Jyoti Parikh, *Environment and Development Economics*, Vol.2, No. 2, 1997
58. "Energy Demand Forecasts with Investment Constraints", Saumen Majumdar and Jyoti Parikh, *Journal of Forecasting*, Vol.15, 549-576, 1997. IGIDR-RP No.251, 1997.
59. "Climate Change and India's Energy Policy Options: New Perspectives on Sectoral CO<sub>2</sub> Emissions and Incremental Costs", Jyoti Parikh and Subir Gokarn, *Global Environmental Change*, 3(3) September 1993.

## **B.5 Sectoral Studies in Climate Change, Mitigation**

### **B.5.a Power Sector**

60. J. Parikh, K. K. Govil and C. D. Biswas (2008): Introduction to Carbon Capture and Storage, Urjavarana volume 1, pg no. 15-19.
61. Barnali Nag and J. Parikh (2005) Carbon emissions coefficients of power consumption in India ;*Energy Policy*, Vol 33, Issue 6, pp777-786.
62. “The Emperor Needs New Clothes: Long-Range Energy-Use Scenarios by IIASA-WEC and IPCC”, *Energy*, Vol. 23, No. 1, pp. 69-70, 1998.
63. “Economic and Environmental Impacts of Demand Side Management Programmes”, B. Sudhakara Reddy and Jyoti K. Parikh, *Energy Policy*, Vol.25, No.3, 1997.
64. “CO<sub>2</sub> Emissions Reduction from Power System in India”, D. Chattopadhyay and J.K. Parikh, *Natural Resources Forum*, Vol. 17, No.4, pp.251-261, Nov. 1993.

### **B.5.b Transport Sector**

65. Yedla, S.,Parikh, J.K.,Shrestha, R.M. " Sustainable urban transportation: Impact of CO<sub>2</sub>mitigation strategies on local pollutants " *International Journal of Environment and Pollution* 19 (5) ,pp.475,2003
66. Jyoti Parikh, Anjana Das (2004), “Transport scenarios in two metropolitan cities in India: Delhi and Mumbai” *Energy* Vol. 45, Issue 15-16.
67. “Transport Sector in India: An Analysis in the Context of Sustainable Development”, R. Ramanathan and Jyoti K. Parikh, *Transport Policy*, (6) 1, 35-45, 1999.
68. “Trends in Transport Sector in India”, Jyoti K. Parikh and R. Ramanathan, *Energy Scenario*, 1(1), 15-20, 1997.
69. Indian Transport Sector: Energy and Environmental Implications”, R. Ramanathan, *Energy Sources*, 18(7), 791-805, 1996.

### **B.5.c Agriculture Sector**

70. Kumar, K.S.K.,Parikh, J. " Indian agriculture and climate sensitivity " *Global Environmental Change* 11 (2) ,pp.147,2001
71. “Socio-economic Impacts of Climate Change on Indian Agriculture”(2004) Jyoti Parikh and Kavi Kumar, *International Review of Environmental Strategies*,.
72. “Indian Agriculture and Climate Change Sensitivity”. K.S. Kavi Kumar and Jyoti Parikh, *Global Environmental Change*, Vol. 11(2), pp: 147-154, 2001
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