

CURRICULUM VITAE

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ANIL MARKANDYA

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Place of Birth: Lahore, Pakistan.

Date of Birth: 23rd September 1945

Nationality: British

Education:

1960-1964	Friends School, Great Ayton, Teeside, Yorks.
1964-1967	University of York, York, England. B.A. (Honours) in Economics
1967-1968	London School of Economics, M.Sc. in Econometrics
1975	London School of Economics, Ph.D. in Economics

Honorary Appointments:
(Prizes etc).

Fellow of the **Royal Society of Arts** (1991-).
Winner of **Mazzotti Prize** (Venice) for contributions to economics and ecology (1991).
Special Mention by **UNEP** for contributions to protection of the ozone layer (1995)
Several awards at the **World Bank** for designing and implementing innovative projects and promoting sustainable development.
Share in **Nobel Peace Prize** 2007 as Lead Author of **IPCC 3rd and 4th Assessments**, WGII and WGIII.
2nd Prize from the World Energy Council for Paper Presented at the 2007 WEC Conference in Rome.
Member, Editorial Board, **Environmental & Resource Economics**, (Kluwer Academic Publishers) (1990-);
Environment & Development (Cambridge University Press) (1993-2008).
Listed as one of the World's top 50 Sustainability Thought Leaders by **University of Cambridge** Programme for Industry (2008).
Lead Author **IPCC 5th Assessment** WGII.

MAJOR APPOINTMENTS HELD (Listed chronologically by first association with each institution. A star indicates that my association with that institution is still active):

A. MAJOR FULL TIME APPOINTMENTS

- (a) Economic Assistant with the **Department of Employment and Productivity**, UK, 1968-1969.

- (b) Assistant Lecturer in Economics at the **London School of Economics**, 1969-1970.
- (c) Visiting Lecturer in Economics and Public Affairs, **Woodrow Wilson School, Princeton University**, 1975-1976.
- (d) Lecturer in Economics in the Department of Economics, **University College London**, 1970-1985. Senior Lecturer, 1985-1990. Reader in Economics, 1990-92.
- (e) Visiting Professor, **University of California, Berkeley**, 1982.
- (f) Research Associate, **Harvard Institute for International Development**, Harvard University, September, 1992-1994. Duties include lecturing at the Kennedy School of Government and providing advisory services to various developing countries in Asian, Latin America and Africa.
- (g) Senior Environmental Policy Advisor, **Government of Russia** under the USAID NIS program on environmental economics in Russia, 1995-1996. Areas covered included forestry, air and water projects and public finance.
- (h) Professor of Economics, **University of Bath**, UK, January 1, 1996-Present. Duties included being Head of Department, 1997-2000, and member of Promotions Committee.
- (i) Lead Economist, **World Bank**, Working in the Eastern Europe and Central Asia (ECA) Region, Department for Environment and Sustainable Development, 2000-2004 and Financial Resources Mobilization (FRM), 2004-2005.
- (j) Director, Sustainable Indicators and Environmental Valuation and Applied Research, Fondazione Eni Enrico Mattei, Milan, Italy, 2005-2008. Fellow of the Fondazione: 2009-
- (k) Scientific Director, Basque Centre for Climate Change, Bilbao, Spain, 2008-.

B. ADVISORY PRIVATE SECTOR AND RESEARCH POSITIONS

- (i) Economic consultant to the **Australian Government** on the Sydney Airport Study Scheme, 1973-1974.
- (ii) Consultant to the **Italian Confederation of Industry** (Confindustria), based in Rome, 1977-1979.
- (iii) Economic Consultant to the **Asian Development Bank** working on Korea, dealing with Urban, Environmental and Social Developments in that country, 1980; Sustainable Development Policies, 1989-90, Environmental Training, 1990; Energy and the Environment, 1992, Environmental Indicators, 1994-5.
- (iv) Consultant to the **Committee of Kuwaiti Banks** on a Medium Term Economic Model of Kuwait, 1984, and to the Commercial Bank of Kuwait, 1988.
- (v) Consultant to the **World Bank**, Policy Divisions: Projects 1985, Economics and Policy Division, 1989, Environment Department, 1991-; EDI, 1994-1998.
- (vi) Director, Economic Impact Study, Kalabagh Dam Project, Pakistan. **United Nations Development Program (UNDP)**, 1986-1987.
- (vii) Consultant Economist to the UK **National Institute of Economic and Social Research**, UK, 1985-1986.
- (viii) Consultant to the **World Bank**, Operations Divisions: Pakistan, 1986-1989, Turkey, 1986-, Nepal, 1988-91; Somalia, 1989-90; Poland, 1990; Ukraine, 1992; Bulgaria, 1994.
- (ix) Consultant to **UNDP** on the ARUN III Energy Project and the Karnali Hydropower/Irrigation Impact Studies in Nepal, 1987-1991 (in collaboration with EDF International).

- (x) Advisor to the **Organisation for Economic Cooperation and Development (OECD)** (Environment Directorate) on Environmental Benefit Estimation, Compensation for Environmental Damage, Uses of Benefit Estimation, 1986-1989. Nuclear Energy, 1994.
- (xi) Consultant to **Mathtech** on USAID Technical Assistance Project in Pakistan attached to the Planning Commission (Energy Wing), Islamabad, 1987-1989.
- (xii) Advisor to the UK **Overseas Development Administration (ODA)** on Discount Rates and Project Appraisal; Hydro Dams in the Tropics; CFC Costs of Substitution, 1992-1994, Biodiversity Financing in Kenya, 1987-1991, Biodiversity convention, 1992-4, CFCs, 1992-.Methyl Bromide (1997), Economic Options Committee of the Montreal Protocol (1998).
- (xiii) Economic Advisor on the Nepal Environmental Impact and Policy Program funded by the **ODA**, UK, 1988-1989.
- (xiv) Consultant to **United Nations Environment Program (UNEP)** on Environmental Accounting; Environmental Issues in Kuwait and Nepal; CFC Control Under the Montreal Protocol; Biodiversity; Desertification, GEF Projects, 1988-93; Environmental Valuation, 1995.
- (xv) Economist/Econometrician on the Sudan Gum Rehabilitation Project, by the **Arab Fund**, 1988-1990.
- (xvi) Visiting Professor at the **Universities of Bergamo and Bocconi**, Italy, 1991.
- (xvii) Chairman of the UK **Interagency Research Panel on Climate Change**, Socio-economic Aspects, 1990.
- (xviii) Associate Director, **London Environmental Economics Centre**, set up under the auspices of the International Institute for Environment and Development and University College London. Advisor on various environmental projects, funded by international and bilateral agencies (AFSED, DoE, IBRD, IUCN, OECD, ODA, SIDA, UNEP), 1988-1991.
- (xix) Consultant to **International Labour Organisation (ILO)** on Technology, Employment and the Environment, 1990.
- (xx) Consultant to **Food and Agricultural Organisation (FAO)** on the Environment and Structural Adjustment, and on Economic Instruments for Environmental Protection, Agriculture & the Environment, 1990-91; Sustainable Agriculture; 1992-96.
- (xxi) Advisor to the **Government of Switzerland** on the Social Costs of Transport (Project under the Direction of the University of Neuchatel), 1990-2; on tradable permits, 1994.
- (xxii) Consultant to the **FRG Environment Ministry (Umweltbundesamt)** on Environmental Benefit Estimation, 1990.
- (xxiii) Consultant to the **UK Department of the Environment** on Global Emissions Targets, 1990, SO₂ reduction strategies in Europe.
- (xxiv) Advisor to **International Fund for Agricultural Development (IFAD)** on Grant Financing for Environmental Projects in Poor Countries, 1990; Guidelines for Sustainable Agriculture, 1993-94; Convention on Desertification, 1995.
- (xxv) Advisor to the **Inter American Development Bank** on Environmental Valuation, 1990-1991.
- (xxvi) Jean Monnet Professor at the **European University of Florence**, Italy, 1992.
- (xxvii) Member, **Beijer Institute Centre of Ecological Economics**, Royal Swedish Academy of Sciences, Stockholm, 1991-.

- (xxviii) Member, **European Science Foundation**, Environment Science and Society Programme, 1990-1992.
- (xxix) Visiting lecturer at **INSEE**, Paris and **ENGREF**, Paris, 1992-1996.
- (xxx) Advisor to the **European Commission DG 12** on Research Priorities in the 1990s, DGXII, 1990; on EXTERNE as chief economist, 1992-1997; on Green Accounting, 1994-1996.
- (xxxii) Advisor to the **European Commission DG 11** on policy for controlling CFCs, 1991 (in collaboration with Coopers Deloitte). On the Economics of Water in the EU, 1997-1999. On Approximation of Costs of Compliance for Countries seeking Accession to the EU, 1997-1999. Advisor to DG2/DG11 on trade impacts of the Montreal Protocol, 1996-97.
- (xxxiii) Advisor to **European Commission, DGVIII** on the environmental costs of the Lomé Convention, 1994-98.
- (xxxiiii) Advisor to **Burson Marsteller** on Environmental Policy and Business Strategy, 1990-1992.
- (xxxv) Resource Person, **African Development Bank**, Environmental and Social Impacts of Agricultural Practices in Africa, and Environmental Costs and Project Appraisal 1990-1992.
- (xxxvi) Advisor to **United Nations Industrial Development Organisation (UNIDO)** on Ecologically Sustainable Industrial Development, 1991.
- (xxxvii) Advisor to the **United Nations Conference on Environment and Development on Trade and the Environment (UNCED)**, 1991.
- (xxxviii) Advisor to **UNCTAD** on Trade and the Environment, Geneva, 1992-98.
- (xxxix) Expert advisor to the **Inter Parliamentary Union** on Financing Sustainable Development, 1992.
- (xl) Consultant to the **Commission for Sustainable Development**, United Nations, on Financing Sustainable Development, 1993-.
- (xli) Chief Reviewer, Ganga River Action Plan, and Gomti River Action Plan DFID and **Government of India**, 1995-1998.
- (xlii) Advisor on environment and development indicators, **EUROSTAT**, Luxembourg, 1995-98.
- (xliii) Advisor to **UNDP** on Capacity 21 a programme to build capacity for sustainable development in developing countries, 1997.
- (xliv) Consultant to IPCC working group on Mitigation and Adaptation Cost Assessment, **UNEP Collaborating Centre on Energy and the Environment, Risø**, 1996-1999.
- (xlv) Member, **UK Government Advisory Committee on Air Pollution and Health**, 1997-1999.
- (xlvi) Member, International Panel on Climate Change (**IPCC**), Working Group III, 3rd Assessment Report. Convening Lead Author, 1998-2001.
- (xlvii) Senior Economist, Maharashtra Water Demand Assessment Study, **DFID**, 1998.
- (xlviii) Member ESCOR Committee, **DFID**, 1998-2001.
- (xlix) Advisor, Environmental Impacts of the Financial Crises: A Study of Thailand, **Asian Development Bank**, 1998.
- (l) Advisor, Impacts of Hydropower Dams in the Tropics, **Asian Development Bank**, 1998-99
- (l) Nominated Expert, **North American Free Trade Association (NAFTA), Commission for Environmental Cooperation**, 1998-1999.

- (li) Rapporteur, **OECD Labour Management Programme**, on *Mineral Investment and its Effects on Development*, 1998.
- (lii) Research Programme Reviewer, **Ministry of Environment**, Paris, France, (1998-1999).
- (liii) Advisor, International Energy Markets, **Fondazione Eni Enrico Mattei**, Milan, Italy, (2002-2005).
- (liv) Advisor, **Government of the Basque Country** on Climate Change and Energy, 2004-
- (lv) Consultant **Asian Development Bank** on Organic Agriculture and Biofuels, 2006-2008. Fujian PES Project, China, 2008-2009.
- (lvi) Member, Sustainability Panel, **Wessex Water**. 2007-
- (lvii) Member Expert Panel, **South West Regional Development Association**, UK, 2008-2010
- (lviii) Advisor to the **Government of Korea** on the Economics of Climate Change in Korea. 2010-2011
- (lix) Lead Author, **IPCC**, 5th Assessment, WG II, Chapter 17 on the Economics of Climate Change. 2011-2014
- (lx) Scientific Advisor, **Nordic Council**, Top Level Research Initiative, 2011-2015.
- (lxi) Expert, **European Commission**, Impact Assessment of the 8th EU Research and Innovation Programme. 2011.
- (lxii) Panel Member, to establish a **German Research Centre for Integrative Biodiversity Research**. 2011.

PUBLICATIONS: (Excluding book reviews and journalistic contributions)

Key: Refereed Journal Article: (J), Edited or Authored Book or Monograph (B), Contribution to Book (CB).

1973

1. "Complexity and Adjustment in Input-Output Systems", (with S. Robinson) Bulletin of the Oxford Institute of Economics and Statistics 35, 2, 119-134. (J)

1974

2. "Pollution and Optimal Taxation - a Static Analysis", (with W. Beckerman), Journal of Environmental Economics and Management 1, 43-52. (J)

1975

3. "Vasectomy Bonuses and Completed Family Size in Rural India", (with N.J. Rau), Journal of Public Economics 4, 319-334. (J)

1978

4. "The Quality of Current Approximation to the Measurement of Compensation Cost", Oxford Economic Papers 30, 3, 423-434. (J)

1979

5. "Optimum Towns and Environmental Externalities", Journal of Economic Theory 21, 3, 445-464. (J)

1982

6. "Intergenerational Exchange Mobility and Economic Welfare", European Economic Review 17, 307-324. (J)

7. "The Measurement of Earnings Mobility among Occupational Groups", Scottish Journal of Political Economy 29, 1, 75-88. (J)

1983

8. "Headship Rates and the Household Formation Process in Great Britain", Applied Economics 15, 6, 821-830. (J)

1984

9. "The Welfare Measurement of Changes in Economic Mobility", Economica 51, 457-471. (J)
10. "The Demand for Housing, Household Headship Rates and Household Formation: An International Analysis", (with K. Rosen, P. Ullmo and L. Smith), Urban Studies 21, 407-414. (J)

1985

11. "The Market for New Housing in the U.K.", Economic Review 2, 4, 37-41. (J)
12. "The Interpretation of Capitalised Hedonic Prices in a Dynamic Environment", (with P. Abelson), Journal of Environmental Economics and Management 12, 195-206. (J)
13. "Medium Term Planning in Oil Based Economies", (with M. Pemberton), OPEC Review IX, 4, 351-368, (1985). (J)

1986

14. "Disequilibrium Models with Rational Expectations: An Application to the U.K. Labour Market", (with S.G. Hall, S.G.B. Henry and M. Pemberton), Economic Letters 21, 215-220. (J)
15. "The U.K. Labour Market - Equilibrium or Disequilibrium?", (with S.G. Hall, S.G.B. Henry and M. Pemberton), Lloyds Bank Review 165, 27-39. (J)
16. *The Economic Benefits of Environmental Improvement*, (with D.W. Pearce), The Environmental Research Trust, Romford, England, 64pp (1986). (B)

1987

17. "Marginal Opportunity Cost as a Planning Concept in Natural Resource Management", (with D.W. Pearce), Annals of Regional Science XXI, 3, 18-32, (1987). Adapted and reprinted in J. Armitage and G. Schramm (eds.), Environmental Issues in Economic Development, Johns Hopkins University Press, Baltimore (1988). Also adapted and reprinted in J. Kozub (ed.) *Agriculture Meets Ecology: Readings for Land and Water Ecosystems Management*, Economic Development Institute, Washington DC. (J)
18. "Economic Policy with Fluctuating Oil Revenues", (with M. Pemberton), OPEC Review XII, I, 23-36. (J)
19. Environmental Considerations and the Choice of the Discount Rate in Developing Countries, (with D.W. Pearce), The World Bank, Washington, Environment Department, 79pp (1987). Also adapted and reprinted in J. Kozub (ed.) *Agriculture Meets Ecology: Readings for Land and Water Ecosystems Management*, Economic Development Institute, Washington DC. (CB)

1988

20. "Sustainable Future: Natural Environments and the Social Rate of Discount", (with D.W. Pearce), Project Appraisal 3, 1, 2-12. (J)
21. "Pricing and the Environment", (with D.W. Pearce), OECD Observer 151, 23-26. (J)

22. "Sustainable Development in the Sahel: An Economic Perspective", (with D.W. Pearce), in IUCN: Sahel Status Report, IUCN, Geneva. **(CB)**
23. "Environmental Economics and Decision Making", (with D.W. Pearce and E. Barbier) in P. Frühling (ed.), Recovery in Africa, Swedish Ministry of Foreign Affairs, Stockholm, 271-290. **(CB)**

1989

24. "The UK Labour Market: Expectations and Disequilibrium", (with S. Hall, S.G.B. Henry and M. Pemberton), Applied Economics 21, 11, 1509-1523. **(J)**
25. "Measuring the Social Costs of Smoking: the Issue of Addiction ", (with D.W. Pearce), British Journal of Addiction 84, 1139-1150. **(J)**
26. *Blueprint for a Green Economy* (with D.W. Pearce and E. Barbier), Earthscan Publications, London, 192pp. **Winner of the Premio Gambrinus Mazzotti for literature on ecology. (B)**
27. "The Residential Pricing of Electricity in Developing Countries", (with M. Pemberton and A. Sarhan), Egyptian Computer Science Journal 12, 2, 74-96. **(J)**
28. "*The Benefits of Environmental Policy*", (with D.W. Pearce), OECD, Paris, 83pp. **(B)**
29. "Shadow Prices and Energy Planning in Pakistan", (with I. Elwan), Proceedings of the IAEA Regional Workshop on WASP/MAED, Kuala Lumpur, International Atomic Energy Agency, Vienna. **(CB)**

1990

30. "Non-Linear Prices and Energy Demand", (with M. Pemberton) Energy Economics 10, 27-34. **(J)**
31. "The Conditions for Achieving Environmentally Sustainable Development", (with E. Barbier), European Economic Review 34, 659-669. **(J)**
32. "Sustainable Agricultural Development and Project Appraisal", (with E. Barbier and D.W. Pearce), European Review of Agricultural Economics 17, 181-196. **(J)**
33. "Environmental Costs and Power Systems Planning", Utilities Policy 1, 1, 13-28. **(J)**
34. "Environmental Sustainability and Cost-Benefit Analysis", (with E. Barbier and D.W. Pearce), Environment and Planning 22, 1259-1266. **(J)**
35. *Sustainable Development: Economics and Environment in the Third World* (with E. Barbier and D.W. Pearce), Elgar Publishing, Hants., UK., 217pp. **(B)**
36. *Economic Policies for Sustainable Development*, Asian Development Bank, (contributed to the volume edited by S. Hansen), Manila, 253pp. **(CB)**

1991

37. "The Economics of Tropical Deforestation", (with E. Barbier and J. Burgess), Ambio, 20, 2, 55-58. **(J)**
38. "Development, Environment and the Rate of Discount", (with D.W. Pearce), World Bank Research Observer, 6, 2, 137-150. **(J)**
39. "Managing the Impacts of Large Hydropower Dams in the Tropics", (with J. Furtado, D.W. Pearce, D. Butcher and J. Mitchell), 13th Annual Scientific Forum on Energy, 203-224, Inderscience Enterprises Ltd. **(J)**
40. *The Economic Appraisal of Projects: The Environmental Dimension*, Inter-American Development Bank, Washington DC, pp. 115. **(B)**.
41. *Blueprint 2: The Global Environment* (ed. D.W. Pearce) (Chapters 4 and 5). Earthscan Publications, London, 232pp. **(CB)**

42. "Long Term Tradeoffs for Sustainability Policies in the Area of Environmental Toxicology: An Economic Analysis of the NIMBY Syndrome: A Comment", in H. Opschoor and D.W. Pearce (eds.) *Economic Analysis for Environmental Toxicology*, Kluwer Academic Publishers, 157-158 Amsterdam. **(CB)**
43. "Environmental Benefit Estimation and Decision-Making: The Case of the United Kingdom", (with R. Kerry Turner and D.W. Pearce), in J-P Barde and D.W. Pearce (eds.), *Benefits Estimates and Environmental Decision-Making*, OECD, 203-235, Paris. **(CB)**
44. "The Road to Ecologically Sustainable Industrial Development (with R.U. Ayres), Proceedings of the Conference on Ecologically Sustainable Industrial Development, Copenhagen, Denmark, UNIDO, Vienna. **(CB)**
45. "Technology, Environment and Employment: A Survey", World Employment Programme, 2-22, ILO, Geneva, 61pp. **(CB)**
46. "Criteria, Instruments and Tools for Sustainable Agricultural and Rural Development", FAO Conference on Agriculture and the Environment, FAO, Rome, 36pp. **(CB)**.
47. "Technological Substitution Options for Controlling Greenhouse Gas Emissions", in J. Poterba and R.M. Dornbush (eds.), Global Warming Economic Policy, 147-154, (Section on CFCs) MIT Press. **(CB)**
48. "Barriers Facing the Achievement of Ecologically Sustainable Industrial Development (with R.U. Ayres and N. Petringa), Proceedings of the Conference on Ecologically Sustainable Industrial Development, Copenhagen, Denmark, UNIDO, Vienna. **(CB)**

1992

49. "Environment and Sustainable Development", FEEM Newsletter, 4-8. **(J)**
50. *Readings in Environmental Economics* (with J. Richardson), Earthscan Publications, London, 469pp. **(B)**
51. *Integrated Energy-Environment Planning: Towards Developing a Framework*, Asian Development Bank, (With T. Siddiqi and M. Postle), Manila, 76pp. **(B)**
52. "What Value Do We Place On Our Environment?" in POLMET 91: Pollution in the Metropolitan Urban Environment, 293-308, Hong Kong Institution of Engineers, Hong Kong. **(CB)**
53. "Natural Resource Management in Southern Africa: A Primer for Policy Analysis" (with J. Bishop, A. Tomasin, and J. Richardson), London, Environmental Economics Centre, pp. 398. **(CB)**
54. *Structural Adjustment and the Environment* (ed. D. Reed) (Chapters 3-6 pp 49-160) (with J. Richardson and J. Bishop), Westview Press. **(CB)**

1993

55. "A Method for the Economic Valuation of Non Timber Forest Products", Economic Botany, 47, (3), 220-233 (with R. Godoy, and R. Lubowski). **(J)**
56. "The External Costs of Nuclear Power: Ex Ante Damages and Lay Risks", American Journal of Agricultural Economics, 75, 1273-1279. (with A.J. Krupnick, E. Nickell) **(J)**
57. "Trade and the Environment: Some Issues", Pacific Asian Journal of Economics, 3, 1, 103-110. **(J)**
58. "Economic Development and the Environment in Africa: The African Development Bank's Role", (with C. Munoz) in M. Munasinghe (ed.) *Environmental Policy and Development*, World Bank, Washington DC. **(CB)**

59. A. Markandya and C. Costanza (eds.). "Environmental Accounting: A Review of the Current Debate" UNEP Environmental Economic Series, #8, UNEP, Nairobi, Kenya. **(CB)**

1994

60. "Is Free Trade Compatible with Sustainable Development?", UNCTAD Review, 1994, pp 9-22. **(J)**
61. Environmental Taxation: A Review of OECD Countries Experience and Prospects for Economies in Transition, Paper No.1, (with Z. Lehoczki) Regional Environmental Centre, Budapest. **(B)**
62. *Essays in Sustainable Development*, (ed.) FAO (ISSN 0259-2460), Rome, 268pp. **(B)**
63. "Measuring the External Costs of Fuel Cycles", in O. Hohmeyer and R.L. Ottinger (eds.) *External Environmental Costs of Electric Power*, Springer-Verlag. **(CB)**
64. "Joint Implementation: Way Forward or a Negotiator's Nightmare?", in P.Ghosh and J. Puri (ed.) *Joint Implementation of Climate Change Commitments*, Tata Energy Research Institute New Delhi. **(CB)**
65. *Estimating Fuel Cycle Externalities: Analytical Methods and Issues*, Report 2, Oakridge National Laboratory and Resources for the Future, McGraw Hill, New York. (with several contributors). **(CB)**

1995

66. "Industrial Pollution Control Policies in Asia: How Successful are the Strategies?", Asian Journal of Environmental Management, (with A. Shibli). **(J)**
67. *ExternE: Externalities of Fuel Cycles: Volume 2: Economic Valuation..* European Commission, Brussels. **(CB)**
68. "Employment and Environment: A Survey" in I. Ahmad, *Employment and Sustainable Development*, Macmillian **(CB)**
69. "Air Pollution and Energy Policies in Developing Countries", in C. Carraro (ed.) *The International Dimensions of Environmental Policy*, Kluwer. **(CB)**
70. *The Phaseout of Ozone Depleting Substances: Economic Options Report*, (Chapters 3 and 6), UNEP, Nairobi. **(CB)**
71. "International Experience with the Economic Aspects of National Biodiversity Planning", *Biodiversity Economics Workshop*, Moscow: Ministry of Environment. **(CB)**
72. "Trade and Environment: Issues Related to Sustainable Development" in (A. Agarwal (ed.), *Environment and Economics*, Centre for Science and Environment, New Delhi, India. **(CB)**
73. "Market Based Instruments and the ENRAP" in *The Philippine Environment and Natural Resources Project* Proceedings of an International Workshop, Tagaytay City, Philippines **(CB)**

1996

74. *Environmental Valuation for Sustainable Natural Management*. International Fund for Agricultural Development, Rome. **(B)**
75. "International Experience in Creating Informational Systems for the Management of Natural Resources", in *Issues of Natural Resources Accounting, Social and Economic Assessment*, Ministry of Environment, Russian Federation, Moscow. **(CB)**
76. "Green Accounting in Europe: The Role of Benefit Estimation" 51st International Congress of Applied Econometrics Association (AEA), Econometrics of Environment and Transdisciplinarity, AEA, Geneva **(CB)**

77. "The Avoided Costs of Using Wind Energy", in *The Economics of Wind Energy*, Proceedings of EWEA Conference, Finland. **(CB)**
78. "Economics and Environment: English-Russian Glossary" (with R. Perlet). OECD, Paris. **(CB)**
79. "The Internalisation of the Environmental Costs of Electricity Generation" in *Power-Gen in Europe '96: Where the Industry Connects*, Volume 1, pp 247-264, PennWell Conferences, Utrecht, Holland. **(CB)**
80. "External Costs of Electricity: Valuation of Health Impacts" in *Electricity, Health and the Environment: Comparative Assessment in Support of Decision-Making*, pp 199-214, IAEA, Vienna. **(CB)**

1997

81. "Ecolabelling: An Introduction and A Review", in S. Zarilli, V. Jha and R. Vosennaar (eds.) *Eco-labelling*, Macmillian, London. **(CB)**
82. "Quantifying the Risks of Nuclear Electric Energy" in O. Hohmeyer and R.L. Ottinger and K. Rennings (eds.) *Social Costs and Sustainability* Springer-Verlag. **(CB)**
83. "Pollution Charges in Russia: The Experience of the Last Five Years Charges" (with M. Kozletsev in *Implementation of Pollution Charge Systems in Transition Economies*, in: (R. Bluffstone and B. Larson (eds.)) Edward Elgar, Cheltenham. **(CB)**
84. "What Have We learned About Market-based Instruments?" in C. Jeanrenaud (ed.) *Environmental Policy: Between Regulation and Market* Birkhauser. **(CB)**
85. "Economic Instruments: Accelerating The Move From Concepts to Practical Application", in J. Holst, P. Koudal and J. Vincent, (eds.), *Financing for Sustainable Development*, United Nations: New York. **(CB)**
86. "Case Study for El-Salvador, Jamaica and Venezuela", in *Structural Adjustment, The Environment and Sustainable Development*, D. Reed (editor), Earthscan Publications, London. **(CB)**
87. "Economic Instruments and Fiscal Reform" in *New Electricity Markets and the Environment*, CEC, Brussels **(CB)**

1998

88. "Poverty, Income Distribution and Policy-making", Environmental and Resource Economics, 11, (3-4), 459-472. **(J)**
89. "Trade and Industrial Impacts of Multilateral Environmental Agreements: A Case Study of the Montreal Protocol". Trade and Environment Report DGII/B4, Commission of the European Communities (with I. Milborrow), European Economy, 1998, 1, 31-90. **(J)**
90. "The Costs of Environmental Regulation in Asia: Command and Control versus Market Based Instruments" Asian Development Review, 16, 1, 1-30. **(J)**
91. *The Indirect Costs and Benefits of Greenhouse Gas Emissions*, UNEP, ISBN87-5502458-0, UNEP Collaborating Centre, Riso, Denmark. **(B)**
92. "The Role of Economic Valuation in Decision Making About Air Pollution". Paper presented at the NATO Advanced Research Workshop on "Air Pollution in the Ural Mountains," Magnitogorsk, Russia, May 26th-30th 1997. NATO ASI Series Kluwer Academic Publishers (with I. Milborrow). **(CB)**
93. "Sustainable Development and Economic Transition in Russia: What Issues? What Agenda?" in *The Environment in the 21st Century: Environment, Long-term Governance and Democracy*, Millon, Paris. **(CB)**

94. “Bilateral Technical Assistance and Environmental Sustainability: Lessons from the Russian Experience” in I. Linkov and R. Wilson (eds.) *Strategies for Environmental Sustainability: Lessons from International Cooperation*, NATO Advanced Workshop, Kluwer Academic Publishers. **(CB)**
95. “Green Accounting Research Project” pp 169-189 in P. Vaze (ed.), *UK Environmental Accounts 1998*, London: The Stationery Office. **(CB)**
96. “Cost Analysis Principles” in Sathaye, J and Christensen, J (Eds.) *Mitigation and Adaptation Cost Assessment: Concepts, Methods and Appropriate Use*. (with K. Haslmaes and I. Milborrow). UNEP. **(CB)**
97. “Mineral Investment and Its Effects on Development”, *OECD Labour Management Programme*, OECD, Paris. **(CB)**
98. “Improvement of the Assessment of the External Costs of Severe Nuclear Accidents” (with N. Dale and T. Schneider), Centre D’Etude Sur L’Evaluation De La Protection Dans Le Domaine Nucléaire, (CEPN) Report N^o 260, Paris. **(CB)**

1999

99. “The Valuation of Health Impacts in Developing Countries” in Planejamento e Politicas Publicas, 18, 119-154. **(J)**
100. “Evaluating the Health Effects of Air Pollution: How and Why?” (with P. Mason) Economic Review, 17, 2, 2-15. **(J)**
101. *Green Accounting in Europe: Four Case Studies*, (With M. Pavan), Kluwer Academic Publishers. 369 pp. **(B)**
102. *Reconciling Trade and the Environment* (With V. Jha and R. Vossenaar), Edward Elgar, Cheltenham 359pp. **(B)**.
103. “Green Accounting in China: The Role of Damage Estimation”. in A. Lanza, (ed). *Resources Accounting in China*, pp 21-52 (With I. Milborrow), Kluwer Academic Publishers. **(CB)**
104. “Preferential Trading Arrangements between Kenya and the EU: A Case Study of the Environmental Effects of the Horticulture Sector” pp 83-100. in P. Fredriksson (ed.) *Trade, Global Policy and the Environment*, (With L. Emmerton and S. Mwale). World Bank and Johns Hopkins Press, Washington DC. **(CB)**
105. *Economic Options Committee: 1998 Assessment Report on Phaseout of Substances that Deplete the Ozone Layer*, (Lead Author for Chapters 4 and 8), UNEP, (1999).
106. *Economic Appraisal of the Health Effects of Air Pollution*, (Contributing Author) HMSO. **(CB)**
107. *The Indirect Costs and Benefits of Greenhouse Gas Limitation: Mauritius Case Study*. Report for the UNEP Collaborating Centre on Energy and the Environment, Roskilde, Denmark. **(CB)**
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LANGUAGES:

(1-5 for Competence)

English:	Reading: 5	Writing: 5	Speaking: 5
French:	Reading: 4	Writing: 3	Speaking: 4
Italian:	Reading: 4	Writing: 3	Speaking: 4
Spanish:	Reading: 3	Writing: 2	Speaking: 3
Russian:	Reading: 1	Writing: 1	Speaking: 2
Hindustani:	Reading: 0	Writing: 0	Speaking: 4

OTHER RELEVANT WORK EXPERIENCE

Field experience in the following developing countries: Bangladesh, Botswana, Brazil, Burkina Faso, Cambodia, China, Chile, Colombia, Egypt, El Salvador, Ghana, India, Ivory Coast, Jamaica, Kenya, Korea, Lao PDR, Malaysia, Mexico, Nepal, Pakistan, Philippines, Somalia, Sri Lanka, Sudan, Thailand, Trinidad, Turkey, Uganda.

Field experience in the following transition economies: Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Mongolia, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Tajikistan, Turkmenistan, Uzbekistan and Ukraine.

Working Experience in the following other countries: Australia, France, Italy, Japan, Spain, UK, and USA.