Biodiversity Bibliography Part 1 **Economics and Management of Biodiversity**



A Brief Bibliographical Survey Prepared By: Dr. Gopal Kadekodi and Dr. Madhumita Mishra Center for Multidisciplinary Development Research (CMDR) August 2003



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Biodiversity – General

1: SUSTAINABILITY

- 1. Barnes, J.I. (1999): "Economic potential for biodiversity use in South Africa: Empirical evidence," *Environmental and Development Economics* 4 (2): 215-220.
- 2. Chopra, K. and, G. K. Kadekodi (1999): "Operationalising sustainable development: Economic Ecological modeling for developing countries", SAGE Publication, New Delhi.
- 3. Perrings, C. (1995): "Biodiversity loss: Economic and Ecological issues, Cambridge", Cambridge University Press.
- 4. Perrings, C. (1997): "Biodiversity, Sustainable Development and Natural Capital [Biotic Diversity, Sustainable Development and Natural Capital]", *Economics of Ecological Resources*, Selected essays; New Horizons in Environmental Economics series, Cheltenham, U.K. and Lyme, N.H. Elgar; distributed by American International Distribution Corporation, Williston, Vt.; 211-31. Previously published: 1994.
- Pimm, S. L. etal. (1999): "The Future of Biodiversity", Turner, R. K., K. Button, P. Nijkamp, eds. "Ecosystems and nature: Economics, science and Policy", Elgar Reference Collection, *Environmental Analysis and Economic Policy, Vol.* 7. Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., 1999; 39-42. Previously published: 1995.
- 6. Tilman, D. (1997): "Biodiversity and Ecosystem Functioning", Daily Gretchen C., ed. *Nature's services: Societal dependence on natural ecosystems*, Washington, D.C, Center for Resource Economics, 93-112, Island Press.

2: RESILIENCE

- 7. Batabyal, A.A. (1998): "The concept of resilience: Retrospect and Prospect", *Environmental and Development Economics* 3 (2): 235-239.
- 8. Carl, F. (2002): "Social-ecological resilience and behavioral response". http://www.beijer.kva.se/publications/pdf-archive/Disc/155.pdf.
- Carpenter, S.R. and K.L., Cottingham (1997): "Resilience and restoration of lakes", *Conservation Ecology* 1(1): 2. [online]URL: <u>http://www.consecol.org/vol1/iss1/art2</u>
- 10. Carpenter, S.R., W.A. Brock, and P. Hanson. (1999): Resilient management: Comments on "Ecological and social dynamics in simple models of ecosystem management", *Conservation Ecology* 3 (2):7. [online] URL: http://www.consecol.org/vol3/iss2/art7
- 11. Chu, C. Y. Cyrus, T. Ching (2001): "Ecosystem Resilience, Specialized Adaptation and Population Decline: A Modern Malthusian Theory." Journal-of-Population-Economics, 14(1): 7-19
- 12. Gunderson, L. (1999): "Resilience, flexibility and adaptive management antidotes for spurious certitude", *Conservation Ecology*, 3(1)7[online] URL: <u>http://www.consecol.org/vol3/iss2/art7</u>.
- 13. Holling, C.S. (1973): "Resilience and stability of ecological systems," *Annual Review of Ecology and Systematics*, 4:1-23.
- Ludwig, D. Walker, B. and Holling C.S. (1997): "Sustainability, stability and resilience", *Conservation Ecology* 1(1):7[online] URL: <u>http://www.consecol.org/vol1/iss1/art7</u>
- 15. Perrings, C. and D.L., Stern (2000): "Modeling loss of resilience in agro ecosystems: Rangelands in Botswana", Environmental *and Resource Economics*, 15(3), 243-256.

Abstract: Economists have recently begun to consider the questions raised by the ecological concept of resilience – a measure of the degree to which a system can be perturbed before it switches from one stability domain to another. At a theoretical level, it has been argued that the loss of resilience in an ecological-economic system involves a change in its long-run productive potential, but no consideration has yet been given to the empirical investigation of this. This paper discusses an econometric approach to the problem, using the example of semi-arid rangelands. The long-run productive potential of the system is regarded as an unobserved state variable, change in which is irreversible or at least only slowly reversible. It is estimated by applying the extended (nonlinear) Kalman filter. The paper illustrates the approach using data from Botswana for the period 1965–1993. The maximum likelihood estimates of the parameters associated with the loss of resilience mechanism are non-zero. They indicate a small loss of resilience event at the end of the long drought in the 1980s. However, these parameters are

very imprecisely estimated and are therefore statistically insignificant. We find that the sensitivity of the system to exogenous shocks varies with fluctuations in both economic and non-economic parameters. Contrary to what is usually thought to be the case, the sensitivity of the system to exogenous shocks is only weakly affected by variations in offtake prices, but is very strongly affected by variations in the cost of herd maintenance. This suggests that offtake prices may be a weak tool for controlling the size of cattle stocks and preventing a loss of resilience. On the other hand, taxes on cattle stocks or grazing fees may be very effective.

- 16. Perrings, C. and B. Walker (1997): "Biodiversity, Resilience and the Control of Ecological-Economic Systems: The Case of Fire-Driven Rangeland", *Ecological Economics*, July, 22(1): 73-83.
- 17. Perrings, C. (1998): "Resilience in the Dynamics of Economy-Environment System", *Environmental and Resource Economics*, April-June, 11(3-4): 503-20.
- 18. Trosper, R.L. (2002): "Northwest coast indigenous institutions that supported resilience and sustainability", *Ecological Economics*, 41(2) 329-344.
- 19. Walker, B. (2002): "Human nature and the resilience of social-ecological system: A comment on the Erhlich's paper", *Environmental and Development Economics*, 7 (1): 183-86.
- 20. Walker, B. (1998): "Resilience, instability and disturbance in ecosystem dynamics", Environmental *and Development Economics*, 3(2): 259-262.

3: VALUATION

- 21. Artuso, A. (1999): "The Pharmaceutical Value of Biodiversity Reconsidered", *Journal of Research in Pharmaceutical Economics*, 9 (4): 63-76
- 22. Barbier, B. E., A. Mike, and K. Ducan (1997): "Economic valuation of wetlands: a guide for policy makers and planners", Ramsar website.
- 23. Cobo, F. (1999): "Valuation of biodiversity within a north-south trade model", *Environment and Development Economics*, 4(3): 251-77.
- 24. Costanza, R (1998): "The value of ecosystem services", *Ecological Economics*, Vol. 25(1): 1-2.
- 25. Costanza, R. (2000): "Social goals and the valuation of ecosystem services," *Ecosystem*, 3, 4-10.
- 26. De-Groot, R. S, M. A. Wilson, M. J. Boumans (2002) : " A Typology for the Classification, Description and Valuation of Ecosystem Functions, Goods and Services," *Ecological-Economics*, June 41(3): 393-408
- 27. Farber, S. C., R. Costanza, M. A. Wilson, (2002) : "Economic and Ecological Concepts for Valuing Ecosystem Services', *Ecological-Economics*, June 41(3): 375-92
- 28. Fromm, O., (2000): "Ecological structure and functions of biodiversity as elements of its Total Economic Value", *Environmental and Resource Economics*, 16(3): 303-328.

Abstract: Rational economic decisions regarding the conservation of biodiversity require the consideration of all the benefits generated by this natural resource. Recently a number of categories of values (inherent value, contributory value, indirect value, infrastructure value, primary value) have been developed, especially in the literature of Ecological Economics, which, besides the individual and productive benefits of biodiversity, also include the utilitarian relevance of the ecological structure and functions of biodiversity in the, so-called, total economic value. For the question of including the ecological structure and functions of biodiversity in the total economic value it is of crucial importance to note, that these categories of values are not only terminologically different, but also relate to different ecological levels of biodiversity and - most importantly to specific complementary relationships - between species, between elements of ecological structures and between ecological functions and their contribution to human well-being. This paper analyses these complementary relationships, discusses their implications for the total economic value of biodiversity and draws conclusions for decision making in environmental policy.

29. Garrod, G.D. and K.G. Willis (1997): "The non-use benefits of enhancing forest biodiversity: A contingent ranking study", *Ecological Economics*, Vol.21 (1):45-61.

- 30. Goeschl, T and T. Swanson (2000): "The social value of biodiversity for R&D", *Environmental and Resource Economics*, 22(4): 477-504.
- Gowdy, John, M (1999): "The Value of Biodiversity: Markets, Society, and Ecosystems", Turner, R.K, K. Button, P. Nijkamp, eds. "Ecosystems and nature: Economics, science and policy", Elgar Reference Collection. *Environmental Analysis and Economic Policy*, Vol. 7. Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., 1999; 122-38. Previously published: 1997.
- 32. Hampicke, U. (1999): "The Limits to Economic Valuation of Biodiversity," *International Journal of Social Economics*, 26 (1-2-3): 158-73
- 33. Howarth, R. B, S. Farber, (2000): "Accounting for the Value of Ecosystem Service," *Ecological-Economics*, June 41(3): 421-29
- 34. Hueting, R., L. Reijnders, B. de Boer, J. Lambooy, and H. Janssen, (1998): "The concept of environmental function and its valuation", *Ecological Economics*, Vol. 25(1): 31-35.
- 35. Johansson, P.O. (2000): "Microeconomics of valuation", Folmer, H., H.L. Gabel, (eds) "Principles of Environmental and Resource Economics: A guide for students and decision makers," Second edition, *New Horizons in Environmental Economics*, Cheltenham, U.K. and Northampton, Mass: Elgar, distributed by American International Distribution Cooperation, Williston, pp34-71.
- 36. Kaiser, B and J. Roumasset (2002): "Valuing indirect ecosystem services: the case of tropical watershed", *Environment and Development Economics*. 7(4): 701-714.
- 37. Maler, K.G., (2002): "Environment, uncertainty and option value", <u>http://www.beijer.kva.se/publications/pdf-archive/Disc/153.pdf</u>.
- 38. Kontogianni, A., et-al (2001): "Integrating Stakeholder Analysis in Non-market Valuation of Environmental Assets," *Ecological-Economics*, April 37(1): 123-38
- 39. Legget, C.G. (2002): "Environmental valuation with imperfect information: The case study of the random utility model," *Environmental and Resource Economics*, 23(3): 343-355.
- 40. Lewandrowski, J., R.F. Darwin, M. Tsigas, and A. Ranoses. (1999): "Estimating costs of protecting global ecosystem diversity," *Ecological Economics*, 29(1): 111-125.
- 41. Macarthur, J. (1996): "The economic valuation of biodiversity, its implication and importance in bioresource planning, and initiatives for its regular use in planning conservation projects in India," In Puspagandan, P. Ravi, K. and Shantosh V.(Eds): *Conservation and Economic Evaluation of Biodiversity*, Vol. 2, Oxford and IBH Publishing co. pvt. Ltd., New Delhi and Calcutta.
- 42. Macmillan, D.C., E.I. Duff and D. Elston (2001): "*Modeling* the non-market environmental costs and benefits of biodiversity projects using contingent valuation data," *Environmental and Resource Economics*, 18 (4): 391-410.

- 43. Montgomery, C. A., A. P. Robert, F. Kathrya, and W. Dein (1999): "Pricing Biodiversity", *Journal of Environmental Economics and Management*, 38:1-19.
- 44. Moran, D. and C. Bann (2000): "The valuation of biological diversity for National Biodiversity Action Plans and Strategies: A guide for trainers," Prepared for the United Nations Environment Programme, Physica-Verlag-Heidelberg.
- 45. Mukerjee, M. and L. Srivastava (1999): "Valuation of ecosystem services: the human dimensions of climate change in developing countries context", In abstracts of the 1999 Open Meeting of the Human Dimensions of Global Environmental Change Research Community, Sohan village, Japan: Institute for Global Climate Change.
- 46. Pearce, D. W. and D. Moran (1994): "The economic value of biodiversity", IUCN, Earthscan Publications Ltd, London.
- 47. Pearce, D., M. Dominic, D. Biller (2002): "Handbook of biodiversity valuation: A guide for policy makers," Paris and Washington, D.C. *Organisation for Economic Co-operation and Development*, 2002; 156

Abstract: Discusses the ways in which value can be attached to biodiversity and highlights the advantages and disadvantages of different approaches. Introduces biodiversity loss and biodiversity value. Distinguishes between economic and noneconomic value criteria and addresses some of the contrasting value systems being advanced in the global conservation debate. Discusses deliberative and inclusionary procedures for eliciting values. Introduces the concept of time discounting and considers how time preference rates may be altered to account for the specific dilemmas faced by biodiversity conservation. Spells out the economic interpretation of value and outlines the taxonomy of values associated with biodiversity. Discusses the range of economic valuation methods and their limitations, covering economic valuations based on market prices and stated preference methods. Describes the practice of benefits transfer, in which a estimate of willingness to pay from one site, the study site, is "borrowed" and applied to another site, the policy site. Provides policy recommendations.

- 48. Perrings, C. (1995): "The economic value of biodiversity in global biodiversity assessment," UNEP, Cambridge University Press.
- 49. Perrings, C. (1996): "The value of biodiversity for sustainable economic development," In Pearce, D. and Moran, D. (1994), *the economic value of biodiversity*, London, Earthscan Publication.
- 50. Polasky, S. and A.R. Solow (1995): "On the value of a collection of species", *Journal of Environmental Economics and Management*, 29: 298-303.
- 51. Pushpagandan, P. and K. Ravi (1996): "Application of environmental valuation techniques for economic valuation of biodiversity: A critical investigation", In Pushpagandan, P. Ravi, K. and Shantosh, V. (Eds): *Conservation and Economic Evaluation of Biodiversity*, Vol. 2, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi and Calcutta.

- 52. Quiggin, J.(1998): "Existence value and the contingent valuation method", *Australian Economic Papers*, 37(3): 312-29.
- 53. Randall, A. (1999): "The Value of Biodiversity", Turner, R. K., K. Button, P. Nijkamp eds. "Ecosystems and nature: Economics, science and policy", Elgar Reference Collection. "*Environmental Analysis and Economic Policy*", Vol. 7. Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., 508-12. Previously published: 1991.
- 54. Ronnback, P. (1999): "The ecological basis for economic value of seafood production supported by mangrove ecosystem", *Ecological Economics*, 29(2): 235-252.
- 55. Tai, S.Y., K.M. Noh, N. Mustapha, and R. Abdullah (2000): "Valuing fisheries depreciation in natural resource accounting: the pelagic fisheries in Northeast peninsular Malaysia", *Environmental and Resource Economics*, 15(3): 227-241.
- 56. Tobias, D. and R. Mendelsohn, (1991): "Valuing ecotourism in a tropical rainforest reserve", Ambio, 20(2): 91-93.
- 57. Van Beukering, P.J.H., S.J.H. Cesar and M.A. Janssen (2003): "Economic valuation of the Levser National Park on Sumatra, Indonesia", *Ecological Economics*, 44(1) 43-62.
- 58. Walker, B. (1999): "Maximising net benefits through biodiversity as a primary land use", *Environment and Development Economics*, 4 (2): 201-14.
- 59. Weikard, H. P. (2002): "Diversity Functions and the Value of Biodiversity", *Land-Economics*, February 78(1): 20-27
- 60. Xue, D., A. Cook, C. Tisdell (2000) : "Biodiversity and the Tourism Value of Changbai Mountain Biosphere Reserve, China: A Travel Cost Approach", *Tourism-Economics*, December 6 (4): 335-57

4: POLICY

- 61. Barbier, E. B, C. E. Schulz (1997): "Wildlife, Biodiversity and Trade", *Environment and Development Economics*, May 2(2): 145-72
- 62. Christine, C. (2000): "Business and Biodiversity", Paper presented at the National biodiversity strategies and action plans, Switzerland, 27th November.
- 63. Dosi, C .and M. Moretto (2001): "Is ecolabelling a reliable environmental policy measure?", *Environmental and Resource economics*, 18 (1): 113-127.

Abstract: The rationale of ecolabelling is to enable firms to reap the willingness-to-pay for the environmental attributes of goods by helping consumers to identify ``green'' products. By so doing, ecolabelling is expected to stimulate spontaneous environmental innovation and to reduce aggregated pollution. Our analysis however outlines situations under which ecolabelling could induce perverse effects, namely increased investment in conventional technologies before the labels are awarded, and examines whether restricting the issue of labels could constitute an antidote.

- 64. Gregory, R. and K. Wellman (2001): "Bringing stakeholder values into environmental policy choices: A community based estuary case study", *Ecological Economics*, 39 (1): 37-52.
- 65. Hahn, R. W. (2000): "The Impact of Economics on Environmental Policy", *Journal of Environmental Economics and Management*, May 39(3): 375-99.
- 66. Moran, D. and D.W. Pearce (1997): "Investing in biodiversity: An economic perspective on priority setting", *Biodiversity and Conservation*, 6(9): 1219-1243.
- 67. Muller, F. G. (2000): "Does the Convention on Biodiversity Safeguard Biological Diversity?", *Environmental Values*, February 9(1): 55-80
- 68. Sandmo, A. (2002): "Efficient environmental policy with imperfect compliance", *Environmental and Development Economics*, 23 (1): 1-28.
- 69. Swanson, T. (1997): "Global action for biodiversity. An international framework for implementing the convention on biological diversity", Earthscan, Cambridge.
- 70. Ulph, A. and L. O' Shea (2002): "Biodiversity and optimal policies towards R&D and the growth of genetically modified crops", *Environmental and Resource Economics*, 22(4):505-20
- 71. UNEP, (1995): "*Global biodiversity assessment*", United Nations Environment Programme and Cambridge University Press, Cambridge.
- 72. Van-den-Bergh, C. J. M. J. Van-der-Straaten eds. (1997): "Economy and ecosystems in change: Analytical and historical approaches", *Advances in Ecological Economics* series, Cheltenham, U.K. and Lyme, N.H. Elgar; distributed by American International Distribution Corporation, Williston, Vt., 1997; xiii, 400

5: MANAGEMENT

- 73. Berkes, F., J. Colding, and C. Folke (2000): "Rediscovery of traditional ecological knowledge as adaptive management", *Ecological Applications*, 10:1251-1262.
- 74. Bien, N.N., <u>Bien@anu.edu-au</u>, Jan (2001): "Forest management systems in the uplands of Vietnam: Social, Economic and Environmental perspectives", <u>http://www.eepsea.org</u>
- 75. Brock, W., A. Xepapadeas (2002): "Optimal Ecosystem Management When Species Compete for Limiting Resources", *Journal of Environmental Economics and Management*, September 44(2): 189-220
- 76. Brown, G. (1997): "Management of wildlife and habitat in developing countries", P. Dasgupta, K.G. Maler (eds.), In the *Environment and Emerging Development* Isues, Volume 2, United Nations University/ World Institute for Development Economics Research (UNU/WIDER) Studies in Development Economics. Oxford and New York: Oxford University Press, Clarendon Press, 1997: 555-73.
- 77. Cardenas, J.C., J. Stranlund and C. Willis (2002): "Economic inequality and burden sharing in the provision of local environmental quality", *Ecological Economics*, 40 (3) 379-395.
- 78. Damodaran, A. (1998): "Stakeholder management policies for sustainable biodiversity services," *Decision*, Vol. 25, Nos 1-4.
- 79. Ehrlich, P.R. (1995): "The scale of human enterprise and biodiversity loss", J.H. Lawton and R.M. May (eds.) *Extinction Rates*, Oxford: Oxford University Press, pp: 214-226.
- 80. Gadgil, M. and P.R.S. Rao (1998): "Nurturing biodiversity: An Indian agenda", Center for Environment Education, Ahmedabad, pp.1.
- 81. Gokhale, Y. (2001): "Biodiversity as a sacred space", In *The Hindu Folio* Supplement, May20,2001
- 82. Grimble, M. and M. Chan, (1995): "Stakeholder analysis for natural resource management in developing countries: Some practical guidelines for making management more participatory and effective", *Natural Resource Forum*, 19(2): 113-124.
- 83. Gunderson, L.H. (2001): "Managing Surprising Ecosystems in Southern Florida", *Ecological Economics*, June 37(3): 371-78
- 84. Hagmann, J., E. Chuma, K. Muriwira, M. Cannoly. and P. Ficarelli (2002): "Success Factors in integrated natural resource management R&D: lessons from practice", *Conservation Ecology*, 5(2): 29
- 85. Hagmann, J. (1999): "Learning together for change, facilitating innovation in natural resource management through learning process approaches in rural livelihoods in Zimbabwe", *Margraf Verlag*, Weikersheim, Germany.

- 86. Hugh, S. (2001): "Pricing and management of recreational activities, which use natural resource", *Environmental and Resource Economics*, 18(3): 339-354.
- 87. Hussain, S.A. (1999): "Biodiversity of Western Ghats complex of Karnataka", Resource Potential and Sustainable Utilization, Biodiversity Initiative Trust, Mangalore.
- Kenneth, A., G. Daily, P. Dasgupta, S. Lewin, K.G. Maler, E. Maskin, D. Starrett, T. Sterner, and T. Tietenberg (2000): "Managing ecosystem resources", *Environmental Science and Technology*, 34:1401-1408.
- 89. Kothari, A. (1997): "India explores joint management of protected area", *Ecodecision*, Winter: 49-52.
- 90. Li, C.Z. K.G. Lofgren, M.L Weitzman (2001): "Harvesting verses Biodiversity: An Occam's razor version", *Environmental and Resource Economics*, 18(4): 355-66.
- 91. Maikhuri, R. K. and K.S. Rao (1998) : " A ban on common sense", *Down to Earth*, January 31, pp36.
- 92. Maler, K.G. (2000): "Development, ecological resources and their management: a study of complex dynamic systems", *European Economic Review*, 44: 645-665.
- 93. Moran, D. and D. Pearce (1997): "The Economics of Biodiversity", H. Folmer, T. Tietenberg, eds., "The international yearbook of environmental and resource economics", 1997/1998: A survey of current issues. New Horizons in Environmental Economics series. Cheltenham, U.K. and Lyme, N.H.: Elgar, distributed by American International Distribution Corporation, Williston, Vt., 82-113
- 94. OECD (1997): "Investing in Biological diversity; The Crains conference", OECD Proceedings, Paris.
- 95. Prato, T. (2001): "Modeling Carrying Capacity for National Park", *Ecological Economics*, December 39(3): 321-31
- 96. Soberon, J., P. Rodriguez and E.V. Dominguez (2000): "Implication of the hierarchical structure of biodiversity for the development of ecological indicators of sustainable use", Ambio, 29(3).
- 97. Sumalde, Z.M. and S. L. Pedroso, <u>zeny@laguna.net</u>, Oct. (2001): "Transaction costs of a community based coastal resource management", <u>http://www.eepsea.org</u>
- 98. Tacconi, L. (2002): "Biodiversity and ecological economics-participation, values and resource management", *Environmental Conservation*, 29(1): 108-119.
- 99. Van Noordwijk, M., T. P. Tomich, and B. Verbist (2001): "Negotiation support models for integrated natural resource management in tropical forest margins", *Conservation Ecology*, 5(2): 21
- 100. Vorhies, F. (1996): "Incentives for Biodiversity", Presented at a workshop on Incentives for Biodiversity: Sharing Experiences, Montreal, Canada.

Abstract: This paper provides background information for a series of case studies discussed during a workshop of the 4th session of the Global Biodiversity Forum held 31 August - 1 September, 1996 in Montreal. The paper and workshop focused on the use of economic incentives for biodiversity conservation and particularly fiscal measures, collaborative management of conservation areas, and commercialization of biological resources. The paper also outlines a framework for Biodiversity Impact Assessment which could be used as a tool for correcting perverse incentives and creating positive incentive measures.

101. Vorhies, F. (1996): "Using economics to attack biodiversity loss", Presented at a workshop on Incentives for Biodiversity Sharing Experiences, Montreal, Canada, 30th August-1st September.

Abstract: The Convention on Biological Diversity mandates impact assessments of policies, programmes, and projects by Contracting Parties in order to ensure that environmental and particularly biodiversity consequences are considered. This workshop examines the role of economics in designing procedures for Biodiversity Impact Assessment (BIA). The author outlines a framework of seven steps for BIA: identify an impact, establish the causes, determine the winners and losers of the impact, propose mitigation, determine the winners and losers of mitigation, implement mitigation measures, and monitor and evaluate. He recommends that the Conference of the Parties call for the development of new procedures for BIA, support NGOs as providers of independent economic information, and continue to seek new financing for biodiversity conservation.

- 102. Western, D.J. (1999): "Biodiversity utilization as a form of land use", *Environmental and Development Economics*, 4(2): 251-77.
- 103. Wilson, E.O. (Eds.) (1988): "Biodiversity", *Washington* DC: National Academy Press.

6: CONSERVATION, PROTECTION AND PROTECTED AREAS

- 104. Achar, K.P. (1997): "Documenting people's knowledge and priorities for biodiversity and conservation through people's register: A case study of Mala village panchayat, Karkala taluk, Kanataka", W.W.F., India, New Delhi; KSCST, Bangalore and Bhuvanendra College, Karkala.
- 105. Ando, A., J. Camm, S. Polasky, and A.R. Solow (1998): "Species distributions, land values, and efficient conservation", *Science*, 279:2126-2128.
- 106. Australian-Productivity-Commission (2001): "Constraints on private conservation of biodiversity", Commission Research Paper series. Melbourne: Authored/ distributed by AusInfo, Canberra, 2001; xviii, 98
- 107. Bawa,-Kamaljit-S, M. Gadgil (1997): "Ecosystem Services in Subsistence Economies and Conservation of Biodiversity", G.C. Daily, ed. *Nature's services: Societal dependence on natural ecosystems*. Washington, D.C.: Center for Resource Economics, Island Press, 1997; 295-310
- 108. Bayon, R., J. S. Lovnik, W.J. Veenig (2000): "Financing biodiversity conservation", *Environmental and Natural Resources*, ENV-134, E, S.
- 109. Bayon, R. (1999): "Financing Biodiversity Conservation", *Prepared for IDB*. http://www.biodiversityeconomis.org.
- 110. Bhat, D. (1997): "Documenting people's knowledge and priorities for biodiversity conservation: A case study of Kalase village, Sirsi taluka, Karnataka. Sahydri Parisara Vardhini Yedahali", Karnataka State Council for Science and Technology, Bangalore and BCPP, W.W.F./ India, New Delhi.
- 111. Bhat, M. G. (1999): "On biodiversity access, intellectual property rights, and conservation", *Ecological Economics*, 29(3): 391-403.
- 112. Brown, K. (1998): "The political ecology of biodiversity, conservation and development in Nepal's Terai: confused meanings, means and ends", *Ecological Economics*, Vol. 24(1): 73-87.
- 113. Bulte, E. H., .G. C. Van-Kooten (2001): "Harvesting and Conserving a Species when Numbers Are Low: Population Viability and Gambler's Ruin in Bioeconomic Models", *Ecological Economics*. April 2001; 37(1): 87-100
- 114. Chopra, K. (1998): "Economic aspects of biodiversity conservation: Micro and macro strategies for invention", Monograph, Institute of Economic Growth, New Delhi, India.
- 115. Clarke, H. (2002): "Institutional Design for Biodiversity Conservation", *Agenda*, 9(4): 305-20

- 116. Colchester, M. (1994): "Salvaging nature:Indigenous people, protected areas and biodiversity conservation", United Nations Research Institute for Social Development(UNRISD),Discussion Paper 55, September, 1994.
- 117. Daily, G. C., K. Ellison (2002): "The new economy of nature: The quest to make conservation profitable", Washington, D.C.: Island Press, Shearwater Books, 260
- 118. Damodaran, A. (2001): "Ayurveda in the age of WTO-biodiversity Conservation", *The Economic Times*, April, Bangalore.
- 119. Daniel, R.J. (1996): "Economics of biodiversity: An ecological perspective", In P. Puspangadan, K. Ravi, and V. Santosh (eds). *Conservation and Economic Evaluation of Biodiversity*, Vol. 2, Oxford & Publishing co. Pvt. ltd., New Delhi and Calcutta.
- 120. Dixon, J. and P.B. Sherman (1990): "Economics of protected area: A new look at benefits and costs", Earthscan Publications, London.
- 121. Doherty, P.F., E. A. Marschale, and T.C. Grubb Jr. (1999): "Balancing conservation and economic gain: a dynamic programming approach", *Ecological Economics*, 29(3): 349-358.

Abstract: We optimize the trade-off between economic and ecological concerns in conservation biology by using a novel method to link a spatially explicit individual-based model to a dynamic programming model. To date, few optimality models have been presented to optimize this trade-off, especially when the common currency cannot be easily measured in dollars. We use a population simulation model (e.g. spatially explicit individual-based model) to model a hypothetical forest bird population's response to different cutting and planting regimes. We then link these results to a dynamic programming model to determine the optimal choice a manager should make at each time step to minimize revenue foregone by not harvesting timber while maintaining a given population of birds. Our results show that if optimal management choices are made further back in time, future (terminal) reward may be greater. As the end of the management period approaches, past management practices influence the terminal reward more than future practices can. Thus if past revenue lost is high, the future reward will be low as compared to when past revenue lost is low. The general strategy of setting some minimum viable population size and then using a population simulator linked to a dynamic programming model to ask how to maintain such a population size with minimum economic loss should have nearly universal applicability in conservation biology.

- 122. Eiswerth, M. E., J. C. Haney (2001): "Maximizing Conserved Biodiversity: Why Ecosystem Indicators and Thresholds Matter", *Ecological Economics*, August 2001; 38(2): 259-74
- 123. Gadgil, M. (1995): "Traditional conservation practice", In: William A. Nierenberg (eds.) *Encyclopedia of Environmental Biology*, Academic Press, pp 423-425.
- 124. Gadgil, M. (1999): "Conserving Biodiversity as if People Matter: A Case Study from India", R. K. Turner, K. Button, P. Nijkamp, eds. Ecosystems and Nature:

Economics, Science and Policy. Elgar Reference Collection. *Environmental Analysis and Economic Policy*, Vol. 7. Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., 1999; 384-88. Previously published: 1992.

- 125. Gilpin, M. (2000): "The Single Species: The Efficient Focus for Biodiversity Protection", Baden, J.A., P. Geddes, eds. "Saving a place: Endangered species in the twenty-first century", Studies in *Environmental and Natural Resource Economics*, Aldershot, U.K. Burlington, Vt. and Sydney: Ashgate, 87-100.
- 126. Goosling, S. (1999): "Ecotourism: A means to safeguard biodiversity and ecosystem functions?", *Ecological Economics*, 29: 303-320.
- 127. Grau, A. and A.D. Brown (2000): "Development threats to biodiversity and opportunities for conservation in the mountain ranges of the upper Bermejo river basin, NW Argentina and SW Bolivia", Ambio, 29(7).
- 128. Grieg, G. M. (2000): "Fiscal incentives for biodiversity conservation: The ICMS ecological in Brazil", International Institute for Environment and Development, Environmental Economic Programme, December, Discussion Paper 00-01.
- 129. Hohl, A.E. and C. A. Tisdell (1997): "Ethics in modern economic thought and their consequences for environmental conservation, land resource use", *Humanomics*, 13(2): 1-37.
- 130. Hope, R.A. (2002): "Wildlife harvesting, conservation and poverty: the economics of Olive ridley egg exploitation. Environmental Conservation", 29(3) 375-384. R.B.W. Smith, J.F. Shogren (1998): Voluntary Incentive design for endangered species protection, Paper presented at 1st World Congress on environmental and Resource Economics, Venice.
- 131. IUCN 1998: "1997 United Nations list of protected areas", *Cambridge and Gland:* IUCN.
- 132. Jyothis, S. (2000): "Willingness to participate in biodiversity conservation in Periyar Tiger Reserve: A contingent valuation", ISEC working paper no.67, ISEC, Bangalore, 16pp.
- 133. Li, C.Z., K. G. Lofgron (1998): "A dynamic model of biodiversity preservation", *Environmental and Development Economics*, 3(2): 157-172.
- 134. Lovejoy, T.E. (1997): "Biodiversity: What is it?", In Biodiversity II, understanding and protecting our biological resources, L. R. Majorie., E.W. Don, and O. W. Edward (Eds), Joseph Henry Press, Washington D.C.
- 135. Maharana, I., S.C. Rai and E. Sharma (2000): "Environmental economics of the Khangchendzonga National Park in the Sikkim Himalayas, India", Geo Journal, 50: 329-337.
- 136. Markandya, A. (2000): "Employment and Environmental Protection: The Trade-Offs in an Economy in Transition", Environmental and Resource Economics, April - 15(4): 297-322.

- 137. Moyle, B. (1998): "Species conservation and the principal agent problem", *Ecological Economics*, Vol.26 (3): 313-320.
- 138. Nadakarni, M.V. (1999): "Environment in Karnataka: A status report", *Economic* and Political Weekly, 34(38): 2735-44.
- 139. Oates, W.E., and H. Folmer (2000): "Economics, Nature conservation and sustainable development: An overview", Edward Elgar Publisher, U.K.
- 140. Opschoor, J.B. (1999): "Making the Benefits of Biodiversity Conservation Visible and Real: Institutional Aspects in a Biodiversity Research Programme", *Environment and Development Economics*, May 1999; 4(2): 227-30
- 141. Organization for Economic Co-operation and Development (OECD), (1996): "Saving biological diversity: economic incentives", Paris: OECD.
- 142. Pachauri, R.K. (1998): "Preservation of environments: an input to development", Yojana, 42(8): 35-39.
- 143. Patrick, R. (1997): "Biodiversity: Why is it important?" In Biodiversity II, *Understanding and Protecting our Biological Resources*, L. R. Majorie, E.W. Don, and O.W. Edward (Eds), Joseph Henry Press, Washington, D.C.
- 144. Pearce, D. W. (1999): "Economics and biodiversity conservation in the developing world", *Environment and Development Economics*, 4: 230-233
- 145. Perrings, C. (1999): "Biodiversity conservation: the problem of scale", *Environment and Development Economics*, 4(2): 203-236.
- 146. Perrings, C. eds. (2000): "The economics of biodiversity conservation in sub-Saharan Africa: Mending the ark", Pub: Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., xix, 351
- 147. Perrings, C., D. Pearce (1999): "Threshold Effects and Incentives for the Conservation of Biodiversity", R. K. Turner, K. Button, P. Nijkamp, eds. Ecosystems and Nature: Economics, Science and Policy. Elgar Reference Collection. *Environmental Analysis and Economic Policy*, Vol. 7. Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., 45-60. Previously published: 1994.
- 148. Polasky, S. eds. (2002): "The economics of biodiversity conservation", (Pub) International Library of Environmental Economics and Policy, Aldershot, U.K. and Burlington, Vt.: Ashgate, xxviii, 466
- 149. Pushpagandan, P., K. Ravi, and Shantosh, V. (Eds) (1996): "Conservation and Economic Evaluation of Biodiversity", Vol. 2 and Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi and Calcutta.
- 150. Ramakrishnan, P.S. (1998): "Conserving the sacred: From species to landscapes, nature and resources", The UNESCO journal on the Environment and Natural Resources Research, vol.32 (1):pp11-19.

- 151. Rodriguez, L.O. and K.R. Young (2000): "Biological diversity of Peru: determining priority areas for conservation", Ambio, 29(6).
- 152. Ross, P. (2002): "The impact of development and privatization on environmental protection: an international perspective", *Environment, Development and Sustainability*, 4(3): 315-331.
- 153. Salafsky, N, E. Wollenberg (2000): "Linking Livelihoods and Conservation: A Conceptual Framework and Scale for Assessing the Integration of Human Needs and Biodiversity", World-Development. August 2000; 28(8): 1421-38
- 154. Sayer, J.A and B. Campbell (2001): "Research to integrate productivity enhancement, environmental protection, and human development", Conservation Ecology, 5(2): 32

(Online) URL:http:// www.consecol.org/vol5/iss2/art32

- 155. Sedjo,A. R., (1999): "Preserving Biodiversity as a Resource", W.E. Oates ed. The RFF reader in environmental and resource management. Washington, D.C.: *Resources for the Future*, 171-75. Previously published: 1992.
- 156. Sehgal, S. (2000): "Does community based conservation makes economic sense? Lessons from India", Kalpavriksh and International Institute of Environment and Development.
- 157. Shyamsunder, P. (1997): "Benefit-cost analysis as a mechanism for evaluating conservation policies in developing countries", *Environmental and Development Economics*, 2(2): 218-221.
- 158. Simpson, R.D. (1995): "Biodiversity prospecting and Biodiversity Conservation", Presented at the Financing Biodiversity Conservation, Harare, Zimbabwe, 13th-15th September.
- 159. Simpson, R.D. (1999): "Biodiversity Prospecting: Shopping the Wilds Is Not the Key to Conservation", Oates, W.E., ed. The RFF reader in environmental and resource management. Washington, D.C.: *Resources for the Future*, 177-81. Previously published: 1997.
- 160. Smith, R.B.W., J.F. Shogren (1998): "Voluntary Incentive design for endangered species protection", Paper presented at 1st World Congress on environmental and Resource Economics, Venice.
- 161. Strijker, D, F.J. Sijtsma and D. Wiersma (2000): "Evaluation of nature conservation", *Environmental and Resource Economics*, 16(4): 363-378.

Abstract: Recent literature shows a lively debate on how to capture ecological and environmental aspects in different evaluation methods and the closely related issue of the (im) possibilities of monetization of these aspects. Although economists in general tend to favour Cost-Benefit Analysis (CBA) above Multi-Criteria Analysis (MCA), part of the literature suggests that CBA falls short of being the only decision-making device for environmental problems, both for theoretical and practical reasons. This paper discusses both evaluation methods and the main results of a major, publicly-financed nature conservation project in

The Netherlands. The evaluation method combines the straightforwardness of CBA with the flexibility of MCA. Conceptually, it consists of a MCA, the net result of a CBA being integrated as one of the criteria. The different aspects of the nature conservation project that can be monetized are incorporated into the CBA. Other aspects such as changes in biodiversity or scenic beauty are analyzed in their own dimension, provided (cardinal) quantification is possible. In fact, the analysis consists of a very simple MCA, with two criteria: social costs and a quantitative measure of nature. Quantifying the amount of nature in its own, nonmonetary dimension is a key element of the empirical analysis. A detailed quantitative estimate is made of the improvement of nature, based upon 564 species and 131 different ecosystems. The result of the evaluation is a trade-off at the national level between ecological improvements (plus 18 percent) and social costs (DFl. 3.4 billion net present value). Due to the detailed quantification of the effect on nature the evaluation also yields results about the cost-effectiveness of four different instruments to create and to preserve nature. That part of the analysis shows that complete withdrawal of agricultural land for nature purposes in the project in general is more cost-effective than subsidizing nature-friendly farming, although the former is more expensive.

- 162. Swanson, T. (1999): "Conserving global biodiversity by encouraging alternative development paths: Can development coexist with diversity?" *Biodiversity and Conservation*, 8: 29-44.
- 163. Tisdell, C. (1999): "Biodiversity, conservation and sustainable development. Principles and practices with Asian examples", Edward Elgar Publishing Ltd., 163pgs, ISBN-85898-735-0.
- 164. Tisdell, C. (2002): "The economics of conserving wildlife and natural areas", Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., 2002; x, 308

Abstract: Twenty-three papers written over the period 1972-2001, all but two previously published, consider economic policies and institutional arrangements designed to improve the conservation, management, and use of nature by humans. Papers discuss world conservation strategy, economic policies, and sustainable countries; economics and the debate about resource use in developing preservation of species, crop varieties, and genetic diversity; safe minimum standards for the protection of species; whether the economic use of wildlife favors conservation and sustainability; how to combine biological conservation, sustainability, and economic growth; biodiversity conservation and the role of communities; the economic conservation and utilization of wildlife species; kangaroos as an economic resource; the economic management of kangaroos; population effects, wildlife, and the management of kangaroos; whether wildlife should be viewed as a national asset or a pest to be managed; conflicts about living marine resources in Southeast Asian and Australian waters; the International Whaling Commission and socially optimal whale harvests; the economics of Antarctic minke whale catches; optimal Australian dugong populations and conservation plans; the conservation of Asian elephants; the provision of parks and the preservation of nature; the economics of wilderness; the provision of wilderness by clubs; policy issues related to the establishment and management of marine reserves; deforestation, capital accumulation, and lessons for the Kerinci-Seblat National Park, Indonesia; community-based forestry in Yunnan; and villagers and the use and conservation of Indian forests.

165. Vorhies, F. (1997): "Harvesting the value of biodiversity to pay for conservation. Creating revenues from biodiversity- In order to conserve it", DANIDA, Hanoi: 133-148.

7: IMPACT ASSESSMEMT

- 166. Andea, B. and V. Frank (1999): "Opportunities for Biodiversity and Impact Assessment in Global Forum", Presented at a workshop on Impact Assessment and the Biodiversity Agenda, 19th Annual Meeting of IAIA, Glasgow, Scotland, 16th-17th June.
- 167. Clare, B. (1998): "Biodiversity and Impact Assessment", *Paper* presented at a conference on the Impact assessment in a developing world, Manchester, England.
- 168. Fankhauser, S and D. Mc Coy (2000): "Impact analysis of environmental policy", Folmer, H, Gabel H-L (eds), "Principles of Environmental and Resource Economics: A guide for students and decision makers", second edition. New Horizons in Environmental Economics. Cheltenham, U.K. and Northhampton, Mass: Elgar, distributed by American International Distribution Cooperation, Williston, vt, 202-32.

8: ENDANGERED SPECIES

- 169. Loomis, J.B. and D. S. White (1996): "Economic benefit of rare and endangered species: summary and Meta analysis", *Ecological Economics*, 18:197-206.
- 170. Swanson, T. (1994): "The economics of extinction revisited and revised: A generalized framework for the analysis of the problems of endangered species and biodiversity loss", Oxford economic papers, 46:800-821.
- 171. Swanson, T. M. (1999): "The Economics of Extinction Revisited and Revised: A Generalized Framework for the Analysis of the Problems of Endangered Species and Biodiversity Losses", R. K. Turner, K.Button, P. Nijkamp eds. Ecosystems and Nature: Economics, Science and Policy. Elgar Reference Collection. Environmental Analysis and Economic Policy, Vol. 7. Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., 61-82. Previously published: 1994.

9: BIODIVERSITY STUDIES RELATED TO SOUTH-ASIAN REGION

- 172. ADB/The World Conservation Union (1994): "Biodiversity conservation in the Asia and Pacific region: Constraints and opportunities", Proceedings of a regional conference, 6-8th June 1994, Manila: ADB/IUCN: 508 pp.
- 173. Adger, W.N. (1999): "Evolution of Economy and Environment: An Application to Land Use in Lowland Vietnam", Ecological *Economics*, December 1999; 31(3): 365-79.
- 174. Alauddin, M., M. Hossain, (2001): "Environment and Agriculture in a Developing Economy: Problems and Prospects for Bangladesh", (Pub): Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., xix, 274.
- 175. Alauddin, M., A. C. Tisdell (1998): "The environment and economic development in South Asia: An overview concentrating on Bangladesh", New York: St. Martin's Press; London: Macmillan Press, xxi, 219.
- Aurora, G.S. (1997): "Ecology and Development in Arunachal Pradesh: In social structure and change", Volume 4, Development and Ethnicity. B.S. Baviskar, E. A. Ramaswamy (eds). New Delhi; Thousand Oaks, Calif and London: Sage Publication, 68-88. Publisher-A.M. Shah.
- 177. Bogahawatt, C. <u>cyril@agecon.pdn.ac.lk</u>; Nov (1999): "Forestry policy, nontimber forest products and the rural economy in the wet zone forests in Sri Lanka." <u>http://www.eepsea.org</u>
- 178. Braatz, S. D., G. S. Shen and C. Reis (1992): "Conserving biological diversity: A strategy for protected area in the Asia-Pacific region" Technical paper No.193, World Bank, Washington, DC.
- 179. Brown, K., R.K. Turner, H. Hameed and I. Bateman (1997): "Environmental carrying capacity and tourism development in Maldives and Nepal", *Environmental Conservation*, 24(4), 316 25.
- 180. Cacha, M. Dulce M., J. Caldecott (1996): "Decentralization and Biodiversity Conservation: Philippines", E. Lutz, J. Caldecott, eds. *Decentralization and Biodiversity Conservation*, World Bank Symposium series, Washington, D.C.: World Bank, 92 -106.
- Caldecott, J. (1996): "Decentralization and Biodiversity Conservation: Indonesia", E. Lutz, J. Caldecott, eds. *Decentralization and biodiversity Conservation*. World Bank Symposium series. Washington, D.C.: World Bank, 42-53.
- 182. Chaudhary, R.P. (1998): "Biodiversity in Nepal: Status and Conservation", Bangkok, Thailand: Teepress Books 324pp.

- 183. Choudhary, K. (2001): "Organization reorientation for protected area management: The case of Gir forest in Gujarat", IRMA Working Paper 157, Institute for Rural Management, Anand India, 38p.
- 184. Devkota, S.R. (1999): "Environment Management in Nepal: Un managing the Manageable", *Ecological Economics*, January 28(1): 31-40
- 185. Edmonds, E.V. (2002): "Government-Initiated Community Resource Management and Local Resource Extraction from Nepal's Forests", *Journal of Development Economics*, June 68(1): 89-115[Renewable Resources and Conservation; Environmental Management Forestry (Q230); Formal and Informal Sectors; Shadow Economy; Institutional Arrangements (O170); Renewable Resources and Conservation; Environmental Management Government Policy (Q280); Forest ; Forestry ; Resources; Wood ; Economic Development Agriculture; Natural Resources; Environment ; Other Primary Products (O130)]
- 186. Gadgil, M. R., P. R. Seshagiri (1995): "Designing Incentives to Conserve India's Biodiversity", S. Hanna, M. Munasinghe, eds. *Property rights in a social and ecological context: Case studies and design applications*. Stockholm: Beijer International Institute of Ecological Economics; Washington, D.C.: World Bank, 53-62.
- 187. Garnaut, R. ed, (2002): "Resource management in Asia Pacific developing countries", Canberra: Asia Pacific Press; distributed by International Specialized Book Services, Portland, Oreg., 2002; xv, 259.[Renewable Resources and Conservation; Environmental Management General (Q200); Developing Countries; Development; Natural Resource; Resources; Economic Development Agriculture; Natural Resources; Environment; Other Primary Products (O130)]
- 188. Global Environment Facility (1998): "Operational report on GEF program".
- 189. Hammitt, J.K., J.T. Liu, and, J. L. Liu (2001): "Contingent valuation of a Taiwanese Wetland", *Environmental and Development Economics*, 6(2): 259-68.
- 190. Ingles, A.W. (1995): "Community forestry in Nepal, conserving the biological diversity of Nepal's forests", In *Conserving the biodiversity outside protected areas: The role of traditional agro-ecosystem.* Edited by Patricia Halladay and D.A. Gilmour, ICUN Forest Conservation Programme. Pp 183-224.
- 191. Jha, P.K., G.P.S. Ghimire, S. B. Karmacharya, S. R. Baral and P. Lacoul, (eds)(1996): "Environment and biodiversity in the context of South Asia", Nepal: Ecological Society.410pp.
- 192. Kang, S.M. (2002): "A Sensitivity Analysis of the Korean Composite Environmental Index", *Ecological Economics*, December 43(2-3): 159-74.
- 193. MoEF (1998): "Implementation of article 6of the convention on biological diversity in India: National Report", Ministry of Environment and forest, Government of India.
- 194. MoEF (1999): "National policy and macro-level action strategy on biodiversity", Ministry of Environment and forest, Government of India.

- 195. O' Connor, D. (1999): "Applying economic instruments in developing countries: From theory to implementation", *Environment and Development Economics*, 4(1): 91-110.
- 196. Pachauri, R. K., P.V. Sridharan, eds. (1998): "Looking back to think ahead: GREEN India 2047", New Delhi and Arlington, Va.: Tata Energy Research Institute, xxii, 346
- 197. Singh, S. (1996): "Decentralization and Biodiversity Conservation: India", E. Lutz, J. Caldecott, eds. *Decentralization and Biodiversity Conservation*. World Bank Symposium series. Washington, D.C.: World Bank, 1996; 28-40
- 198. Sivaramakrishnan, K. (2002): "Forest co-management as science and democracy in West Bengal, India", *Environmental Values*, August 2002, 11(30: 277-302.
- 199. Tisdell, C., and K. Roy (1997): "Sustainability of Land Use in North-east India: Issues Involving Economics, the Environment and Biodiversity", International Journal of Social Economics, 24(1-2-3): 160-77
- 200. Tisdell, C. (1996): "Biodiversity, Conservation and Sustainable Development: Challenges for North-East India in Context", Indian Journal of Quantitative Economics, 11(1): 1-17.
- 201. Tisdell, C. (1999): "Biodiversity, conservation and sustainable development: Principles and practices with Asian examples", *New Horizons in Environmental Economics*, Cheltenham, U.K. and Northampton, Mass.: Elgar; distributed by American International Distribution Corporation, Williston, Vt., 1999; xiv, 263.
- 202. Vincent, J.R. (1997): "Resource depletion and economic sustainability in Malaysia", *Environment and Development Economics*, 2(1): 19-37.
- 203. Wells, M.P., and Sharma, U.R. (1998): "Socio-Economic and Political Aspects of Biodiversity Conservation in Nepal", *International Journal of Social Economics*, 25(2-3-4): 226-43.

10. INTERNET WEBSITES ON BIODIVERSITY

World Conservation Union (IUCN) Gland, Switzerland
 General web site
 <u>http://www.iucn.org/</u>

 Economics of Biodiversity
 <u>http://economics.iucn.org/index.htm</u>

 Economics Service Unit
 <u>http://economics.iucn.org/esu.htm</u>

2. International Institute for Environment and Development (IIED) - London ! General web site <u>http://www.oneworld.org/iied/index.html</u>

3. International Institute for Sustainable Development (IISD) Winnipeg, Canada ! General web site http://iisd.ca/

4. Organisation for Economic Co-operation and Development (OECD) - Paris ! General web site http://www.oecd.org/

5. World Resources Institute (WRI) - Washington ! General web site http://www.wri.org/

6. United Nations Organisations
! Food and Agriculture Organisation
<u>http://www.fao.org/</u>

! United Nations Environment Programme
<u>http://www.unep.org/</u>

! United Nations Development Programme
<u>http://www.undp.org/indexalt.html</u>

7. Convention on Biodiversity <u>http://www.biodiv.org/</u>

8. Economy and Environment Programme for South East Asia (EEPSEA) <u>http://www.eepsea.org</u>

9. Convention on International Trade on Endangered Species (CITES) <u>http://www.wcmc.org.uk:80/CITES/english/index.html</u>

10. EnviroLink Homepage http://envirolink.netforchange.com

- 11. Environment Australia On-Line <u>http://www.erin.gov.au</u>
- 12. Environment Canada's Green Lane <u>http://www.ec.gc.ca</u>
- 13. Environmental Data Services Ltd (ENDS) <u>http://www.ends.co.uk</u>
- 14. Nature Conservation <u>http://www.naturenet.net</u>
- 15. Environmental Protection Agency: Economy and Environment http://www.epa.gov/docs/oppe/eaed/eedhmpg.htm
- 16. Environmental Valuation

http://www.environment.detr.gov.uk/evslist/index.htm

REGIONAL LINKS FOR SSEA

Centre for Science and Environment-India http://www.oneworld.org/cse/html/cmp/cmp13.htm

Biodiversity Profile for India http://www.wcmc.org.uk/igcmc/main.html

Malaysia Biodiversity On-line <u>http://biodiversity.ukm.my/</u>

- Maldives Rio+5 Summary Report http://www.ecouncil.ac.ar/rio/natreg/english/nep.htm
- Nepalnet Website-Introduction to Ecology & Biodiversity in Nepal http://www.panasia.org.sg/nepalnet/bioframe.htm
- Pakistan-WRI Biodiversity Guide to Pakistan http://www.wri.org/wri/sdis/strategs/wdces/pa91_334.html
- Philippines- Biodiversity Conservation in the Philippines http://www.bwf.org/fpebio.html
- Philippines- Conservation International- Biodiversity Hotspot Profile http://www.conservation.org/web/fieldact/hotspots/philippi.htm

Singapore-WRI Biodiversity in Singapore http://www.wri.org/wri/data/dces-861.html

Thailand- Biodiversity Research and Training Program http://www.brtprogram.org/dat/about.html

Vietnam- Biodiversity Profile of the Socialist Republic of Vietnam <u>http://www.brtprogram.org/dat/about.html</u>