

References

- Adger, WN (2000a) 'Social and ecological resilience: Are they related?' *Progress in Human Geography* 24: 347-364
- Agarwal, PK; Bandyopadhyay, SK; Pathak, H; Kalra, N; Chander, S; Kumar, S (2000) 'Analysis of yield trends of the rice-wheat system in north-western India.' *Outlook on Agriculture* 29(4): 259-268
- Aggarwal, D; Lal, M (2001) *Vulnerability of Indian coastline to sea level rise*. New Delhi: Centre for Atmospheric Sciences, Indian Institute of Technology
- AIACC (2007) *A stitch in time: Lessons for climate change adaptation from the AIACC project*. Assessments of Impacts and Adaptations to Climate Change (AIACC) Working Paper No. 48, May 2007. Washington DC: AIACC
- Allan, JD; Palmer, M; Poff, NL; (2005) 'Climate change and freshwater ecosystems.' In Lovejoy, TE; Hannah, L (eds) *Climate Change and Biodiversity*. New Haven: Yale University Press
- Anand, S; Sen, A (1994) *Human Development Index: Methodology and Measurement*, Occasional Paper 12. New York: United Nations Development Programme, Human Development Report Office
- Ando, M (1998) 'Risk assessment of global warming on human health.' *Global Environmental Research* 2: 69-78
- Andronova, NG; Schlesinger, ME (2001) 'Objective estimation of the probability density function for climate sensitivity.' *J. Geophys. Res.* 106: 22, 605-22, 612
- Anonymous (1993) *Summary of procedures to produce a landslide susceptibility map*. In Geo-haz Consultants, Phase 1 Report to the US Department of Commerce, Economics of Global Change Programme
- Anyamba, A; Eastman, JR; Fulk, M (1995) 'NDVI time image series as an indicator of climate variability.' In ACSM/ ASPRS Annual Convention and Exposition Technical Papers 3: 714-723
- APN (2003) *Global change impact assessment for Himalayan mountain regions: Resource management and sustainable development*, Final Report. Kathmandu: APM. www.apn.gr.jp/en/products/project_report/2003/finalreport/2003-03.pdf
- APN (2005) *Enhancement of national capacities in the application of simulation models for the assessment of climate change and its impacts on water resources and food and agricultural production*, CAPaBLE Project: 2005-CRP1CMY. Islamabad: APN
- ATEAM (2004) *Final Report 2004*. Potsdam: Advanced Terrestrial Ecosystem Analysis and Modeling, PIK
- Bajracharya, SR; Mool, PK; Shrestha, BR (2007) *Impact of climate change on Himalayan glaciers and glacial lakes: Case studies on GLOF and associated hazards in Nepal and Bhutan*. Kathmandu: ICIMOD
- Ball, GH; Hall, DJ (1965) *A novel method of data analysis and pattern classification*. Menlo Park (California): Stanford Research Institute
- Beniston, M (2003) Climate change in mountain regions: A review of possible impacts. *Climate Change* 59: 5-31
- Berry, P (2007) *Adaptation options on natural ecosystems*, report to the UNFCCC Financial and Technical Support Division, Bonn, Germany. http://unfccc.int/cooperation_and_support/financial_mechanism/financial_mechanism_gcf/items/4054.php (accessed 23 September 2009)
- Bhattacharya, PM; Majumdar, RK; Kayal, JR (2002) 'Fractal dimension and b-value mapping in Northeast India.' *Curr. Sci.* 82: 1486-1491
- Bohle, HC; Downing, TE; Watts, MJ (1994) 'Climate change and social vulnerability.' *Global Environmental Change* 4(1): 37-48
- Bouchama, A; Parhar, RS; El-Yazigi, A; Sheth, K; Al-Sedairy, S (1991) 'Endotoxemia and release of tumor necrosis factor and interleukin 1 alpha in acute heatstroke.' *Journal of Applied Physiology* 70(6): 2640-2644
- Brenkert, AL; Malone, EL (2005) 'Modeling vulnerability and resilience to climate change: A case study of India and Indian states.' *Climatic Change* 72: 57-102
- Brooks, N (2003) *Vulnerability, risk and adaptation: A conceptual framework*, Working Paper 38. Norwich: Tyndall Centre for Climate Change Research
- Bruinsma, J (ed) (2003) *World agriculture: Towards 2015/2030 - An FAO perspective*. Rome: Food and Agriculture Organization, and London: Earthscan
- Caldwell, CR; Britz, SJ; Mirecki, RM (2005) 'Effect of temperature, elevated carbon dioxide, and drought during seed development on the isoflavone content of dwarf soybean [*Glycine max* (L.) Merrill] grown in controlled environments.' *J. Agr. Food Chem.* 53(4): 1125-1129
- Carpenter, S; Walker, B; Anderies, JM; Abel, N (2001) 'From metaphor to measurement: Resilience of what to what?' *Ecosystems* 4: 765-781
- CEPF (2005) *Ecosystem profile: Indo-Burman Hotspot, Eastern Himalayan Region*. Arlington: WWF, US-Asian Program/CEPF
- CEPF (2007) *Ecosystem profile: Indo-Burman Hotspot, Indo-China Region*. Arlington: WWF, US-Asian Program/CEPF
- Chakravorty, AK (1951) 'Origin of cultivated banana of Southeast Asia.' *Indian J. Genet.* 11: 34-46
- Chambers, R (1989) 'Vulnerability, coping and policy.' *Institute of Developmental Studies Bulletin* 20: 1-7
- Chen, Hao; El Garouani, A; Lewis, LA (2008) 'Modelling soil erosion and deposition within a Mediterranean mountainous environment utilizing remote sensing and GIS - Wadi Tlata, Morocco.' *Geographica Helvetica* 63: 36-47
- Chen, Shenbin; Liu, Yunfeng; Thomas, A (2006) 'Climatic change on the Tibetan plateau: Potential evapotranspiration trends from 1961-2000.' *Climatic Change* (2006) 76: 291-319

- Chettri, N; Sharma, E; Shakya, B; Thapa, R; Bajracharya, B; Uddin, K; Oli, KP; Choudhury, D (2010) *Biodiversity in the Eastern Himalayas: Status, trends and vulnerability to climate change*; Climate change impact and vulnerability in the Eastern Himalayas – Technical Report 2. Kathmandu: ICIMOD
- CIESIN (2004) *Global spatial data and information: Development, dissemination and use*. New York: Centre for International Earth Science Information Network
- CIESIN (2005) *Gridded gross domestic product (GDP)*. New York: Center for International Earth Science Network. http://islsdp2.sesda.com/ISLSCP2_1/html_pages/groups/soc
- CIESIN/CIAT (2003) *Gridded population of the world version3 (GPW3) – population density grids*. Palisades (NY): Socioeconomic Data and Applications Centre (SEDAC), Columbia University. <http://sedac.ciesin.columbia.edu/gpw>
- Clark, WC; Jaeger, J; Corell, R; et al. (2000) *Assessing vulnerability to global environmental risks*, Report of the Workshop on Vulnerability to Global Environmental Change: Challenges for Research, Assessment and Decision Making, Warrenton, VA. Research and Assessment Systems for Sustainability Program Discussion Paper 2000-12. Cambridge MA: Harvard University, Kennedy School of Government, Environment and Natural Resources Program, Belfer Center for Science and International Affairs (BCSIA)
- Clark, WC; Dickson, NM (2003) 'Sustainability science: The emerging research program.' *Proceedings of the National Academy of Sciences* 100(14):8059–8061
- Conway, D; Bhattarai, K; Shrestha, NR (2000) 'Population-environment relations at the forested frontier of Nepal.' *Applied Geography* 20: 221–242
- Cowling, RM; Pressey, RL (2003) 'Introduction to systematic conservation planning in the Cape Floristic Region.' *Biological Conservation* 112: 1–13
- Cowling, RM; Pressey, RL; Rouget, M; Lombard, AT (2003a) 'A conservation plan for a global biodiversity hotspot – the Cape Floristic Region, South Africa.' *Biological Conservation* 112: 191–216
- Cutter, SL (1996) 'Vulnerability to environmental hazards.' *Progress in Human Geography* 20(4): 529–539
- Cutter, SL (2003) 'The vulnerability of science and the science of vulnerability.' *Annals of the Association of American Geographers* 93 (1): 1–12
- Daily, GC (1997) 'Introduction: What are Ecosystem Services?' In Daily, GC *Nature's Services: Societal Dependence on Natural Ecosystems*. Washington DC: Island Press
- Dash, SK; Jenamani, RK; Kalsi, SR; Panda, SK (2007) 'Some evidence of climate change in the twentieth-century India.' *Climate Change* 85: 299–321
- De Groot (1992) *Functions of nature: Evaluation of nature in environmental planning, management and decision making*. Groningen: Wolters-Noordhoff
- De Groot, RS; Wilson, AW; Boumans, RMJ (2002) 'A typology for the classification, description and valuation of ecosystem functions, goods and services.' *Ecological Economics* 41: 393–408
- Dhar, U (2002) 'Conservation implications of plant endemism in high-altitude Himalaya.' *Current Science* 82: 141–148
- DHM (1996) *Glacier lake outburst flood study of the Tama Koshi Basin*. Draft Report prepared by BPC Hydroconsult, November 1996 for the Department of Hydrology and Meteorology, Kathmandu, Nepal
- DHM (2004) *Initial national communication of Nepal under the United Nations Framework Convention on Climate Change*. Kathmandu: Department of Hydrology and Meteorology
- Dinerstein, E; Wikramanayake, ED (1993) 'Beyond 'hotspots': How to prioritise investments to conserve biodiversity in the Indo-Pacific region.' *Conservation Biology* 7: 53–65
- Dinerstein, E; Powell, G; Olson, D; Wikramanayake, E; Abell, R; Loucks, C; Underwood, E; Allnutt, T; Wittengel, W; Ricketts, T; Strand, H; O'Connor, S; Burgess, N (2000) *A workbook for conducting biological assessments and developing biodiversity. Visions for ecoregion-based conservation. Part 1: Terrestrial ecoregions*. Washington DC: Conservation Science Program, WWF-USA
- Downing, TE (1992) *Climate change and vulnerable places: Global food security and country studies in Zimbabwe, Kenya, Senegal and Chile*, Research Report 1. Oxford: University of Oxford, Environmental Change Unit
- Downing, TE; Butterfield, R; Cohen, S; Huq, S; Moss, R; Rahman, A; Sokona, Y; Stephen, L (2001) *Climate change vulnerability: linking impacts and adaptation*. Oxford: University of Oxford
- Downing, TE; Patwardhan, A (2003) *Vulnerability assessment for climate adaptation. Adaptation policy framework, Technical Paper 3: A Guide for Policies to Facilitate Adaptation to Climate Change*. New York: United Nations Development Programme
- Dye, DG; Tucker, CJ (2003) 'Seasonality and trends of snow-cover, vegetation index, and temperature in northern Eurasia.' *Geophysical Research Letters* 30(7): 1405
- Dyurgerov, MB; Meier, MF (1997) 'Mass balance of mountain and sub-polar glaciers: A new global assessment for 1961–1990.' *Arctic and Alpine Research* 29(4): 379–391
- Epstein, PR; Diaz, HF; Elias, S (1998) 'Biological and physical signs of climate change. Focus on mosquito-borne diseases.' *Bull. Amer. Meteorol. Soc.* 78: 410–417
- Epstein, Y; Sohar, E; Shapiro, Y (1995) 'Exceptional heatstroke: a preventable condition.' *Israel Journal of Medical Science* 31: 454–462
- Erikson, SH; Kelly, PM (2007) 'Developing credible vulnerability indicators for climate adaptation policy assessment.' *Mitigation and Adaptation Strategies for Global Change* 12: 495–524
- Esty, DC; Levy, M; Srebotnjak, T; de Sherbinin, A (2005) *Environmental Sustainability Index: Benchmarking national environmental stewardship*. New Haven: Yale Center for Environmental Law and Policy
- Esty, DC; Levy, MA; Kim, CH; de Sherbinin, A; Srebotnjak, T; Mara, V (2008) *2008 Environmental Performance Index*. New Haven: Yale Center for Environmental Law and Policy
- Fang Jing; Leduc, B (2010) *Potential threats from climate change to human wellbeing in the Eastern Himalayan Region*; Climate change impact and vulnerability in the Eastern Himalayas – Technical Report 6. Kathmandu: ICIMOD
- FAO (2003) *World agriculture: Towards 2015/2030 – An FAO perspective*. Bruinsma //initials?// (ed). Rome and London: Food and Agriculture Organization and Earthscan

- Feenstra, JF; Burton, I; Smith, JB; Tol, RSJ (eds) (1998) *Handbook on methods for climate change impact assessment and adaptation strategies*. Nairobi: UNEP, and Amsterdam: Institute for Environmental Studies/Vrije Universiteit
- Fetke, BM; Vörösmarty, CJ; Grabs, W (2000) *Global composite runoff fields based on observed river discharge and simulated water balances*. Durham: Complex Systems Research Center, University of New Hampshire
- Fischer, G; Frohberg, K; Parry, ML; Rosenzweig, C (1994) 'Climate change and world food supply, demand and trade: Who benefits, who loses?' *Global Environmental Change* 4: 7–23
- Fischer, G; van Velthuizen, H; Shah, M; Nachtergaele, FO (2002a) *Global agro-ecological assessment for agriculture in the 21st Century: Methodology and results*, IIASA RR-02-02. Laxenburg (Austria): IIASA
- Fischer, G; Shah, M; van Velthuizen, H (2002b) *Climate change and agricultural vulnerability, special report to the UN World Summit on Sustainable Development, Johannesburg 2002*. Laxenburg (Austria): IIASA
- Fussler, HM (2005) *Vulnerability to climate change: A comprehensive conceptual framework*, University of California International and Area Studies Breslauer Symposium Paper 6. Berkeley CA: University of California
- Fussler, HM; van Minnen, JG (2001) 'Climate impact response functions for terrestrial ecosystems.' *Integr. Assess.* 2: 183–197
- Fussler, HM; Klein, RJT; Ebi, KL (2006) 'Adaptation assessment for public health.' In Menne, B; Ebi, KL (eds) *Climate Change and Adaptation Strategies for Human Health*, pp 41–62. Darmstadt: Steinkopff Verlag
- Gabet, EJ; Burbank, DW; Putkonen, JK; Pratt-Sitaula, BA; Ojha, T (2004) 'Rainfall thresholds for landsliding in the Himalayas of Nepal.' *Geomorphology* 63: 131–143
- Garg, A; Rana, A; Shukla, PR; Kapshe, M; Azad, M (2007) *Handbook of Current and Next Generation Vulnerability and Adaptation Assessment Tools*. Bombay: Indian Institute of Technology
- Giorgi, F; Mearns, LO (1991) 'Approaches to the simulation of regional climate change: A review.' *Rev. Geophys* 29: 191–216
- Godde, P; Price, MF; Zimmermann, FM (eds) (2000) *Tourism and development in mountain regions*. Wallingford: CAB International
- Gopal, B; Shilpakar, R; Sharma, E (2010) *Functions and Services of Wetlands in the Eastern Himalayas: Impacts of Climate Change*; Climate change impact and vulnerability in the Eastern Himalayas – Technical Report 3. Kathmandu: ICIMOD
- Gopal, B; Chatterjee, A; Gautam, P (2008) *Sacred waters of the Indian Himalaya*. New Delhi: WWF-India
- Gosain, AK; Shrestha, AB; Rao, S (2010) *Modelling climate change impact on the hydrology of the Eastern Himalayas*; Climate change impact and vulnerability in the Eastern Himalayas – Technical Report 4. Kathmandu: ICIMOD
- Grabherr, G; Gottfried, M; Pauli, H (1994) 'Climate effects on mountain plants.' *Nature* 369: 448
- Guisan, A; Holtén, J; Spichiger, R; Tessler, L (eds) (1995) *Potential impacts of climate change on ecosystems in the Alps and Fennoscandian Mountains*. Annex Report to the IPCC Working Group II Second Assessment Report, Publication Series of the Geneva Conservatory and Botanical Gardens. Geneva: University of Geneva
- Haeberli, W; Beniston, M (1998) 'Climate change and its impacts on glaciers and permafrost in the Alps.' *Ambio* 27: 258–265
- H-Acevedo, D; Currie, DJ (2003) 'Does climate determine broad-scale patterns of species richness? A test of the causal link by natural experiment.' *Global Ecology and Biogeography* 12 6: 461–473
- Halpin, PN (1994) 'Latitudinal variation in the potential response of mountain ecosystems to climate change.' In Beniston, M (ed) *Mountain Environments in Changing Climates*, pp 180–203. London: Routledge
- Hansen, LJ; Biringer, JL; Hoffman, JR (eds) (2003) *Buying time: A users' manual for building resistance and resilience in natural systems*. Berlin: WWF
- Hansen-Bristow, KJ; Ives, JD; Wilson, JP (1988) 'Climatic variability and tree response within the forest-alpine tundra ecotone.' *Annals of the Association of American Geographers* 78: 505–519
- Hijmans, RJ; Cameron, SE; Parra, JL; Jones, PG; Jarvis, A (2005) 'Very high resolution interpolated climate surfaces for global land areas.' *International Journal of Climatology* 25: 1965–1978
- Hill, JL; Curran, PJ (2003) 'Area, shape and isolation of tropical forest fragments: Effects on tree species diversity and implications for conservation.' *Journal of Biogeography* 30(9): 1391–1403
- Hirzel, AH; Helfer, V; Métral, F (2001) 'Assessing habitat suitability models with a virtual species.' *Ecological Modeling* 145: 111–121
- Hore, DK (2005) 'Rice diversity collection, conservation and management in Northeastern India.' *Genetic Resources and Crop Evolution* 52: 1129–1140
- Imhoff, JL; Bounoua, L; Ricketts, T; Loucks, C; Harriss, R; Lawrence, WT (2004) 'Global patterns in human consumption of net primary production.' *Nature*, 429:870-873
- IPCC (1997) *The regional impacts of climate change: An assessment of vulnerability*, Special Report of IPCC Working Group II [Watson, RT; Zinyowera, MC; Moss, RH (eds)] Cambridge: Cambridge University Press
- IPCC (1998) *The regional impacts of climate change*. Cambridge: Cambridge University Press
- IPCC-TGCI (1999) *Guidelines on the use of scenario data for climate impact and adaptation assessment*, Version 1. Prepared by Carter, TR, Hulme, M; Lal, M, Intergovernmental Panel on Climate Change, Task Group on Scenarios for Climate Impact Assessment. Geneva: IPCC
- IPCC (2000) *Presentation of Robert Watson*. Chair, Intergovernmental Panel on Climate Change, at the Sixth Conference of the Parties to the United Nations Framework Convention on Climate Change, the Hague, 13th and 20th November, 2000

- IPCC (2001a) *IPCC third assessment report*, Climate Change 2001: Synthesis Report. (Working Group I: The Scientific Basis; Working Group II: Impacts, Adaptation and Vulnerability; Working Group III: Mitigation) Cambridge: Cambridge University Press
- IPCC (2001b) *Climate change 2001 – Impacts, adaptation and vulnerability*. Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change: McCarthy, JJ; Canziani, OF; Leary, NA; Dokken DJ; White, KS (eds). Cambridge: Cambridge University Press
- IPCC (2002) *Climate change and biodiversity*: Gitay, H; Suarez, A; Watson, R; Dokken, D (eds), administered by the IPCC Working Group II Technical Support Unit. Geneva: IPCC
- IPCC (2007a) *Fourth assessment report*. Geneva: Intergovernmental Panel on Climate Change Secretariat
- IPCC (2007b) *Climate change 2007: Summary for policymakers*, Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press
- IPCC (2007c) *Climate change 2007: Climate change impacts, adaptation and vulnerability*, Contribution of Working Group II contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC. www.ipcc.ch/SPM13apr07.pdf (accessed June 2007)
- IPCC (2007d) *Climate change 2007: The physical science basis*, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press
- Ives, JD; Messerli, B; Spiess, E (2004) 'Mountains of the world: A global priority.' In Messerli, B; Ives, JD (eds) *Mountains of the World: A Global Priority*, pp 1–15. New York and London: Parthenon
- Ives, JD; Shrestha, RB; Mool, PK (2010) Formation of glacial lakes in the Hindu Kush-Himalayas and GLOF risk assessment. Kathmandu: ICIMOD
- Jin, ZQ; Shi, CL; Ge, DK; Gao, W (2001) 'Characteristic of climate change during wheat growing season and the orientation to develop wheat in the lower valley of the Yangtze River.' *Jiangsu Journal of Agricultural Science* 17(4): 193–199
- Johnson, DW (1992) 'Effects of forest management on soil carbon storage.' *Water, Air and Soil Pollution* 64: 83–120
- Kaly, U; Briguglio, L; McLeod, H; Schmall, S; Pratt, C; Pal, R (1999) *Environmental Vulnerability Index (EVI) to summarise national environmental vulnerability profiles*, SOPAC Technical Report 275. Fiji: SOPAC
- Kaly, UL; Pratt, CR; Mitchell, J; Howorth, R (2003) *The Demonstration Environmental Vulnerability Index (EVI)*, SOPAC Technical Report 356. Fiji: SOPAC
- Karim, Z; Hussain, SG; Ahmed, M (1996) 'Assessing impacts of climatic variations on foodgrain production in Bangladesh.' *Water, Air, and Soil Pollution* 92: 53–62
- Kasperson, JX; Kasperson, RE (2001) *International Workshop on Vulnerability and Global Environmental Change, 17–19 May 2001, Stockholm Environment Institute (SEI), Stockholm, Sweden*, A Workshop Summary prepared on behalf of workshop participants, SEI Risk and Vulnerability Programme Report 2001–01. Stockholm: Stockholm Environment Institute
- Kasperson, RE; Mabogunje, A; Matson, PA; Mooney, HA; Moore III, B; O'Riordan, T; Svedin, U (2001) 'Sustainability science.' *Science* 292: 641–642
- Kasperson, JX; Kasperson, RE; Turner II, BL; Schiller, A; Hsieh, WH (2003). 'Vulnerability to global environmental change.' In Diekmann, A; Dietz, T; Jaeger, C; Rosa, ES (eds) *The Human Dimensions of Global Environmental Change*. Cambridge: MIT
- Kates, RW (2000) 'Cautionary tales: Adaptation and the global poor.' *Climatic Change* 45: 5–17
- Kates, RW; Clark, WC; Corell, R; Hall, JM; Jaeger, CC; Lowe, I; McCarthy, JJ; Schellnhuber, HJ; Bolin, B; Dickson, NM; Faucheux, S; Gallopin, GC; Gruebler, A; Huntley, B; Jaeger, J; Jodha, NS; Kasperson, RE; Matson, P; Mooney, H; Moore III, B; O'Riordan, T; Svedin, U (2001) 'Sustainability science.' *Science* 292: 641–642
- Kelly, PM; Adger, WN (2000) 'Theory and practice in assessing vulnerability to climate change and facilitating adaptation.' *Climatic Change* 47: 325–352
- Klein, RTJ (2001) *Adaptation to climate change in German development assistance – An inventory of activities and opportunities, with a special focus on Africa*. Eschborn: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)
- Klein, RTJ (2002) 'Adaptation to climate variability and change: What is optimal and appropriate?' In Giupponi, C; Shechter, M (eds) *Climate Change and the Mediterranean: Socio-Economics of Impacts, Vulnerability and Adaptation*. Cheltenham: Edward Elgar
- Kuh, N; Honglei, Z (2008) 'GIS-based modeling of runoff source areas and pathways.' *Geographica Helvetica* 63: 48–57
- Lal, M (2005) 'Implications of climate change on agricultural productivity and food security in South Asia.' In *Key vulnerable regions and climate change – Identifying thresholds for impacts and adaptation in relation to Article 2 of the UNFCCC*. European Climate Forum, and Dordrecht: Springer
- Leary, N; Kulkarni, J (2007) *Climate change vulnerability and adaptation in developing country regions*. Draft Final Report of the AIACC Project, April 2007, The International START Secretariat, Washington DC
- Lehner, B; Doll, P (2004) 'Development and validation of a global database of lakes, reservoirs and wetlands.' *Journal of Hydrology* 296: 1–22
- Leichenko, R; O'Brien, K; Aandahl, G; Tompkins, H; Javed, A (2004) *Mapping vulnerability to multiple stressors: A technical memorandum*. Oslo: CICERO
- Levy, PE; Cannell, MGR; Friend, AD (2004) 'Modelling the impact of future changes in climate, CO₂ concentration and landuse on natural ecosystems and the terrestrial carbon sink.' *Global Environmental Change* 14 (1): 21–30
- Ligon, E; Schechter, L (2002) *Measuring vulnerability*. Washington, DC, USA, September 23–24, 2002. www.ifpri.org/events/conferences/2002/092302.htm (accessed June 2007)
- Liu, X; Chen, B (2000) 'Climatic warming in the Tibetan Plateau during recent decades.' *Int. J. Climatol* 20: 1729–1742
- Luers, AL; Lobell, DB; Sklar, LS; Addams, CL; Matson, PA (2003) 'A method for quantifying vulnerability, applied to the agricultural system of the Yaqui Valley, Mexico.' *Glob Environ Change* 13: 255–267

- Malcolm, JR; Markham, A (1997) *Climate change threats to the national parks and protected areas of the United States and Canada*. Washington, DC: WWF
- Malone, EL; La Rovere, EL (2004) 'Assessing current and changing socio-economic conditions.' In Lim, B; Spanger-Siegfried, E; Burton, I; Malone, EL; Huq S (eds) *Adaptation Policy Frameworks for Climate Change: Developing Strategies, Policies and Measures*, pp 147–163. Cambridge: Cambridge University Press
- Malone, EL; Smith, JB; Brenkert, AL; Hurd, BH; Moss, RH; Bouille, D (2004) *Developing socioeconomic scenarios: For use in vulnerability and adaptation assessments*. New York: United Nations Development Programme
- Mansuri, G; Healy, A (2002) 'Vulnerability prediction in rural Pakistan.' Washington DC: International Food Policy Research Institute. www.ifpri.org/events/conferences/2002/092302/mansuri.pdf (accessed June 2010)
- Martens, P; Kovats, RS; Nijhof, S; de Vries, P; Livermore, MTJ; Bradley, DJ; Cox, J; McMichael, AJ (1999) 'Climate change and future populations at risk of malaria.' *Global Environmental Change* 9: S89–S107
- McArthur, RH (1972) *Geographical Ecology*. New York: Harper and Row
- McKee, JK; Sciulli, PW; Foose, CD; Waite, TA (2004) 'Forecasting global biodiversity threats associated with human population growth.' *Biological Conservation* 115: 161–164
- McMichael, A; Githeko, A; Akhtar, R; Carcavallo, R; Gubler, D; Haines, A; Kovats, RS; Martens, P; Patz, J; Sasaki, A (2001) 'Human health.' In McCarthy, JJ; Canziani, OF; Leary, NA; Dokken, DJ; White, KS (eds) *Climate change 2001: Impacts, adaptation, and vulnerability*, pp 451–485. Cambridge: Cambridge University Press
- McNeely, JA; (1990) 'Climate change and biological diversity: Policy implications, landscape-ecological impact of climatic change.' In Boer, MM; de Groot, RS (eds) *Landscape ecological impact of climate change*. Amsterdam: IOS Press
- MEA (2003) *Ecosystems and human well-being: A framework for assessment*. Washington DC: Island Press
- MEA (2005) *Ecosystems and human well-being: Synthesis*, p 155. Washington, DC: Island Press, published for World Resources Institute
- Menon, S; Pontius, RG; Rose, J; Khan, MI; Bawa, KS (2001) 'Identifying conservation-priority areas in the tropics: A land-use change modeling approach.' *Conservation Biology* 15: 502–512
- Metzger, MJ; Bunce, RGH; Jongman, RHG; Mucher, CA; Watkins, JW (2005a) 'A climatic stratification of the environment of Europe.' *Glob Ecol Biogeogr* 14: 549–563
- Metzger, MJ; Bunce, RGH; Leemans, R; Viner, D (2008) 'Projected environmental shifts under climate change: European trends and regional impacts.' *Environ Conserv* 35:64-75
- Metzger, MJ; Leemans, R; Schröter, D; Cramer, W; the ATEAM Consortium (2004) *The ATEAM vulnerability mapping tool. Quantitative approaches in systems analysis* No. 27. Wageningen: Office CT de Wit Graduate School for Production Ecology and Resource Conservation (PEandRC) (CD-ROM)
- Metzger, MJ; Leemans, R; Schröter, D (2005b) 'A multidisciplinary multi-scale framework for assessing vulnerability to global change.' *International Journal Appl Geo-inf Earth Observ* 7:253–267
- Metzger, MJ; Rounsevell, MDA; Acosta-Michlik, L; Leemans, R; Schröter, D (2006) 'The vulnerability of ecosystem services to land use change.' *Agric Ecosyst Environ* 114: 69–85
- Metzger, MJ; Schröter, D (2006) 'Towards a spatially explicit and quantitative vulnerability assessment of environmental change in Europe.' *Reg Environ Change* 6: 201–216
- Metzger, MJ; Schröter, D; Leemans, R; Cramer, W (2007) 'A spatially explicit and quantitative vulnerability assessment of ecosystem service change in Europe.' *Reg Environ Change* 8:91-107
- Mitchell, TD; Carter, TR; Jones, PD; Hulme, M; New, M (2004) *A comprehensive set of high-resolution grids of monthly climate for Europe and the globe: The observed record (1901–2000) and 16 scenarios (2001–2100)*, Working paper No. 55. Norwich: Tyndall Centre for Climate Change Research, University of East Anglia
- Mitchell, TD; Jones, PD (2005) 'An improved method of constructing a database of monthly climate observations and associated high-resolution grids.' *International Journal of Climatology* 25: 693–712
- Mitsch, WJ; Gosselink, JG (2007) *Wetlands* (4th edn). New York: John Wiley
- Mool, PK; Bajracharya, SR; Joshi, SP (2001a) *Inventory of glaciers, glacial lakes and glacial lake outburst floods, monitoring and early warning system in the Hindu Kush-Himalayan Region, Bhutan*. Kathmandu: ICIMOD
- Mool, PK; Wangda, D; Bajracharya, SR; Kunzang, K; Gurung, DR; Joshi, SP (2001b) *Inventory of glaciers, glacier lakes and glacial lake outburst floods, monitoring and early warning system in the Hindu Kush-Himalayan Region, Nepal*. Kathmandu: ICIMOD
- Moss, R; Brenkert, A; Malone, EL (2000) *Measuring vulnerability: A trial indicator set*. Richland, WA: Pacific Northwest Laboratories. www.pnl.gov/globalchange/projects/vul/indicators.pdf
- Moss, RH; Brenkert, AL; Malone, EL (2001) *Vulnerability to climate change: A Quantitative approach*. Richland, WA: Pacific Northwest Laboratories, US Department of Energy
- Mountain Agenda (1998) *Mountains of the world: Water towers for the 21st Century*. Berne: Mountain Agenda group, Centre for Development and Environment (CDE), University of Berne
- Myers, N (1988) 'Threatened biotas: "Hot spots" in tropical forests.' *Environmentalist* 8: 187–208
- Myers, N; Mittermeier, RA; Mittermeier, CG; da Fonseca, GAB; Kent, J (2000) 'Biodiversity hotspots for conservation priorities.' *Nature* 403: 853–858
- Nakicenovic, N; Alcamo, J; Davis, G; et al. (2000) *IPCC special report on emissions scenarios (SRES)*. Cambridge: Cambridge University Press
- Nakicenovic, N; Swart, R (eds) (2000) *Emissions scenarios*. Cambridge: Cambridge University Press
- NAST (National Assessment Synthesis Team) (2001) *Climate change impacts on the United States*. Cambridge: Cambridge University Press

- Nilsson, C; Grelsson, G (1995) 'The fragility of ecosystems: A review.' *Journal of Applied Ecology*, 32(4):677-692
- Noble, I; Gitay, H (1998) 'Climate change in desert regions.' In Watson, RT; Zinyowera, M; Moss, R (eds) *The Regional Impacts of Climate Change*, pp 191–217. Cambridge: Cambridge University Press
- North, DC (1990) *Institutions, institutional change, and economic performance*. New York: Cambridge University Press
- O'Brien, K; Leichenko, RM (2000) 'Double exposure: Assessing the impacts of climate change within the context of economic globalization.' *Global Environ. Change* 10: 221–232
- O'Brien, K; Eriksen, S; Schjolen, A; Nygaard, L (2004a) *What's in a word? Conflicting Interpretations of vulnerability in climate change research*, CICERO Working Paper 2004:04. Oslo: CICERO, Oslo University
- O'Brien, K; Leichenko, R; Kelkar, U; Venema, H; Aandahl, G; Tompkins, H; Javed, A; Bhadwal, S; Barg, S; Nygaard, L; West, J (2004b) 'Mapping vulnerability to multiple stressors: Climate change and globalization in India.' *Global Environ. Change* 14: 303–313
- O'Brien, K; Sygna, L; Haugen, JE (2004c) 'Vulnerable or resilient? A multi-scale assessment of climate impacts and vulnerability in Norway.' *Clim Change* 64: 193–225
- Olson, DM; Dinerstein, E; Wikramanayake, ED; et al. (2001) 'Terrestrial Ecoregions of the World: A New Map of Life on Earth.' *BioScience* 51: 933–938
- Parmesan, C (2005) 'Biotic response: Range and abundance changes.' In Lovejoy, TE; Hannah, L (eds) *Climate Change and Biodiversity*. New Haven: Yale University Press
- Parmesan, C; Yohe, G (2003) 'A globally coherent fingerprint of climate change impacts across natural systems.' *Nature* 421: 37–42
- Parry, M; Carter, T (1998) *Climate impact and adaptation assessment*. London: Earthscan
- Parry, ML; Rosenzweig, C; Iglesias, A; Livermore, M; Fischer, G (2004) 'Effects of climate change on global food production under SRES emissions and socio-economic scenarios.' *Global Environmental Change* 14 (1): 53–67
- Pathak, D; Gajurel, AP; Mool, PK (2010) *Climate change impacts on hazards in the Eastern Himalayas*; Climate change impact and vulnerability in the Eastern Himalayas – Technical Report 5. Kathmandu: ICIMOD
- Patwardhan, A; Narayanan, K; Parthasarathy, D; Sharma, U (2003) 'Assessment of vulnerability and adaptive capacity in coastal zones.' In Shukla et al. (eds) *Climate Change and India Vulnerability Assessment and Adaptation*. Hyderabad: Universities Press
- Patz, JA; Martens, WJM (1996) 'Climate impacts on vector-borne disease transmission: Global and site-specific.' *Journal of Epidemiology* 6: S145–S148
- Patz, JA; Cambell-Lendrum, D; Holloway, T; Foley, JA (2005) 'Impact of regional climate on human health.' *Nature* 438: 310–317
- Pauli, H; Gottfried, M; Grabherr, G (1998) 'Effects of climate change on mountain ecosystems. upward shifting of alpine plants.' *World Resources Review* 8: 382–390
- PC-GOI (2006) *Report of the task force on the mountain ecosystems (environment and forest sector) for eleventh five year plan*. Delhi: Planning Commission, Government of India
- Pebbley, AR (1998) 'Demography and the environment.' *Demography* 35: 377–389
- Pei, S (1995) *Banking on biodiversity. Report on the regional consultations on biodiversity assessment in the Hindu Kush-Himalaya*. Kathmandu: ICIMOD
- Peng, S; Huang, J; Sheehy, JE; Laza, RE; Vispas, RM; Zhong, X; Centeno, GS; Khush, GS; Cassman, KG (2004) 'Rice yields decline with higher night temperature from global warming.' *Proc. Nat'l Acad. Sci.* 101(27): 9971–9975
- Pereira, H; Daily, GC; Roughgarden, J (2004) 'A framework for assessing the relative vulnerability of species to land-use change.' *Ecological Applications* 14: 730–742
- Peters, RL; Darling, JDS (1985) 'The greenhouse effect and nature reserves: Global warming would diminish biological diversity by causing extinctions among reserve species.' *Bioscience* 35: 707–717
- Peters, RL; Lovejoy, TE (1992) *Global warming and biological diversity*. London: Yale University Press
- Piver, WT; Ando, M; Ye, F; Portier, CT (1999) 'Temperature and air pollution as risk factors for heat stroke in Tokyo, July–August, 1980–1995.' *Environmental Health Perspective* 107(11): 911–916
- Polsky, C; Schröter, D; Patt, A; Gaffin, S; Long Martello, M; Neff, R; Pulsipher, A; Selin, H (2003) *Assessing vulnerabilities to the effects of global change: An eight-step approach*, Research and Assessment Systems for Sustainability Program Discussion Paper 2003–05. Cambridge MA: Environment and Natural Resources Program, Belfer Center for Science and International Affairs, Kennedy School of Government, Harvard University
- PRECIS (2001) *The Hadley Centre Regional Climate Modelling System. Providing Regional Climates for Impact Studies*. Bracknell: The Hadley Centre. www.metoffice.com (accessed June 2007)
- Price, M; Kohler, T; Wachs, T (eds) (2000) *Mountains of the world: Mountain forests and sustainable development*. Berne: CDE, University of Berne
- Qin Dahe (1999) *Map of glacier resources in the Himalayas*. Beijing: Science Press
- Quincey, DJ; Richardson, SD; Luckman, A; Lucas, RM; Reynolds, JM; Hambrey, MJ; Glasser, NF (2007) 'Early recognition of glacial lake hazards in the Himalaya using remote sensing datasets.' *Global and Planetary Change* 56: 137–152
- Ramesh, R; Yadava, MG (2005) 'Climate and water resources of India.' *Current Science* 89(5): 818-824
- Reid, WV; Mooney, HA, Cropper, A; et al. (2005) *Millennium Ecosystem Assessment synthesis report*. Washington: Island Press
- Reiter, P (1998) 'Global warming and vector-borne disease in temperate regions and at high altitude.' *Lancet* 351: 839–840
- RGoB (2006) *National Adaptation Program of Action, submitted to the United Nations Framework Convention on Climate Change*. Thimpu: Royal Government of Bhutan

- Ribot, JC (1996) 'Climate variability, climate change and vulnerability: Moving forward by looking back.' In Ribot, JC; Magalhães, AR; Panagides, SS (eds) *Climate variability, climate change and social vulnerability in the semi-arid tropics*. Cambridge: Cambridge University Press
- Rinne, J; Riutta, T; Pihlatie, M; Aurela, M; Haapanala, S; Tuovinen, JP; Tuittila, ES (2007) 'Annual cycle of methane emission from a boreal fen measured by the eddy covariance technique.' *Tellus* 59B: 449–457
- Robertson, MP; Peter, CI; Villet, MH; Ripley, BS (2003) 'Comparing models for predicting species' potential distributions: A case study using correlative and mechanistic predictive modelling techniques.' *Ecological Modelling* 16: 153–167
- Root, TL; Hughes, L (2005) 'Present and future phenological changes in wild plants and animals.' In Lovejoy, TE; Hannah, L (eds) *Climate change and biodiversity*. New Haven: Yale University Press
- Rupa Kumar, K; Sahai, AK; Krishna Kumar, K; Patwardhan, SK; Mishra, PK; Revadkar, JV; Kamala, K; Pant, GB (2006) 'High resolution climate change scenario for India for the 21st Century.' *Current Science* 90(3): 334–345
- Samper, C; Scholes, R; Watson, RT; Zakri, AH; Shidong, Z; Ash, NJ; Bennett, E; Kumar, P; Lee, MJ; Raudsepp-Hearne, C; Simons, H; Thonell, J; Zurek, NB (2005) *Millennium Ecosystem Assessment synthesis report*. Washington: Island Press
- Schellnhuber, HJ; Black, A; Cassel-Gintz, M; Kropp, J; Lammel, G; Lass, W; Lienenkamp, R; Loose, C; Luedeke, MKB; Moldenhauer, O (1997) *GAIA* 6: 19–34
- Schröter, D; Acosta-Michlik, L; Reidsma, P; Metzger, MJ; Klein, RJT (2003) *Modeling the vulnerability of eco-social systems to global change: human adaptive capacity to changes in ecosystem service provision*. Paper presented at the fifth open meeting of the human dimensions of global environmental change research community, Montreal. <http://sedac.ciesin.columbia.edu/openmtg/> (accessed June 2007)
- Schröter, D; Cramer, W; Leemans, R; et al. (2005a) 'Ecosystem service supply and human vulnerability to global change in Europe.' *Science* 310: 1333–1337
- Schröter, D; Polsky, C; Patt, AG (2005b) 'Assessing vulnerabilities to the effects of global change: An eight step approach.' *Mitigation Adapt Strat Glob Change* 10: 573–595
- Schutze, ED; Mooney, HA (1994) *Biodiversity and ecosystem function*. Berlin: Springer Verlag
- Sen, A (1981) *Poverty and famines: An essay on entitlement and deprivation*. Oxford: Oxford University Press
- Sen, A (1987) *Commodities and capabilities*. New Delhi: Oxford University Press
- Shabanov, NV; Zhou, L; Knyazikhin, Y; Myneni, RB; Tucker, CJ (2002) 'Analysis of interannual changes in northern vegetation activity observed in AVHRR data from 1981 to 1994, IEEE Trans.' *Geos Rem Sens* 40: 115–130
- Sharma, KP (1993) 'Role of rainwater in major river systems of Nepal.' In Young, GJ (ed) *International Symposium Snow and Glacier Hydrology* p. 113–122. Kathmandu: International Association Scientific Hydrology
- Sharma, E; Chettri, N; Tsering, K; Shrestha, AB; FAng Jing, Mool, P; Eriksson, M (2009) *Climate change impacts and vulnerability in the Eastern Himalayas*. Kathmandu: ICIMOD
- Sharma, KP (1997) *Impact of land-use and climatic changes on hydrology of the Himalayan basin: A case study of the Kosi Basin*, Dissertation. Durham: University of New Hampshire
- Shrestha, AB; Wake, CP; Mayewski, PA; Dibb, JE (1999) 'Maximum temperature trends in the Himalaya and its vicinity: Analysis based on temperature records from Nepal for the period 1971–94.' *Journal of Climate* 12: 2775–2787
- Shrestha, KL; Shrestha, ML; Shakya, NM; Ghimire, ML; Sapkota, BK (2003) 'Climate change and water resources of Nepal.' In Muhammed, A (ed.) *Climate Change and Water Resources in South Asia*. Kathmandu: Asianics Agro Dev International
- Shrestha, AB; Devkota, LP (2010) *Climate change in the Eastern Himalayas: Observed trends and model projections; Climate change impact and vulnerability in the Eastern Himalayas – Technical Report 1*. Kathmandu: ICIMOD
- Shukla, PR; Sharma, SK; Ramana, PV (eds) (2002) *Climate change in India issues, concerns and opportunities*. New Delhi: Tata McGraw Hill
- Sitch, S; Smith, B; Prentice, IC; Arneeth, A; Bondeau, A; Cramer, W; Kaplan, JO; Levis, S; Lucht, W; Sykes, MT; Thonicke, K; Venevsky, S (2003) 'Evaluation of ecosystem dynamics, plant geography and terrestrial carbon cycling in the LPJ dynamic vegetation model.' *Glob Change Biol* 9(2): 161–185
- Smit, B; Pilifosova, O (2001) 'Adaptation to climate change in the context of sustainable development and equity.' In McCarthy, JJ; Canziani, OF; Leary, NA; Dokken, DJ; White, KS (eds) *Climate Change 2001: Impacts, Adaptation and Vulnerability*. Cambridge: Cambridge University Press
- Smith, K (2001) *Environmental hazards: Assessing risk and reducing disaster* (3rd edn). London: Routledge
- Smith, JB; Bhatti, N; Menzhulin, G; Benioff, R; Campos, M; Jallow, B; Rijsberman, F; Budyko, MI; Dixon RK (eds) (1996) *Adapting to climate change: Assessment and issues*. New York: Springer-Verlag
- Smith, P; Andrén, O; Brussaard, L; Dangerfield, M; Ekschmitt, K; Lavelle, P; Tate, K (1998) 'Soil biota and global change at the ecosystem level: Describing soil biota in mathematical models.' *Global Change Biology* 4: 773–784
- Smith, JB; Schellnhuber, HJ; Qader Mirza, M; Fankhauser, S; Leemans, R; Erda, L; Ogallo, IA; Pittcock, BA; Richels, R; Rosenzweig, C; Safriel, U; Tol, RSJ; Weyant, J; Yohe, G (2001) 'Vulnerability to climate change and reasons for concern: A synthesis.' In McCarthy, JJ; Canziani, OF; Leary, NA; Dokken, DJ; White, KS (eds) *Climate change 2001. Impacts, adaptation and vulnerability* pp 913–967. Cambridge: Cambridge University Press
- Stalmans, M; Balkwill, K; Witkowski, ETF; Rogers, KH (2001) 'A landscape ecological approach to address scaling problems in conservation management and monitoring.' *Environmental Management* 28(3): 389–401
- Stephen, L; Downing, TE (2001) 'Getting the scale right: a comparison of analytical methods for vulnerability assessment and household-level targeting.' *Disasters* 25: 113–135
- Stern, N (2006) *The Stern review on the economics of climate change*. Cambridge: HM Treasury and Cambridge University Press
- Stern, NH; Taylor, C (2007) 'Climate change: Risk, ethics, and the Stern Review.' *Science* 317(5835): 203–204

- Street, RB; Semenov, SM (1990) 'Natural terrestrial ecosystems.' In Tegart, WJKcG; Sheldon, GW; Griffiths, DC (eds) *Climate change: The first impacts assessment report*. Canberra: Australian Government Publishing Service
- Tao, F; Yokozawa, M; Zhang, Z; Hayashi, Y; Grassl, H; Fu, C (2004) 'Variability in climatology and agricultural production in China in association with the East Asia summer monsoon and El Niño South Oscillation.' *Climate Research* 28: 23–30
- TERI (1996) *The economic impact of a one metre sea level rise on the Indian coastline*, Method and case studies report submitted to the Ford Foundation by the Tata Energy Research Institute. www.ccasia.teri.res.in/country/india/impacts/impacts.htm (accessed June 2007)
- Thomas, CD (2005) 'Recent evolutionary effects of climate change.' In Lovejoy, TE; Hannah L (eds) *Climate Change and Biodiversity*. New Haven: Yale University Press
- Thuiller, W (2003) 'BIOMOD: Optimizing predictions of species distributions and projecting potential future shifts under global change.' *Glob Change Biol* 9: 1353–1362
- Tong, SL; Ying, LV (2000) 'Global climate change and epidemic disease.' *Journal of Disease Control* 4(1): 17–19
- Tse-ring, K (2003) 'Constructing future climate scenarios of Bhutan.' In *Project report on climate change vulnerability and adaptation study for rice production in Bhutan*; for Project: Climate change studies in Bhutan, Activity No. www094505-But.2. Thimphu: Ministry of Agriculture
- Turner, BL II; Kasperson, RE; Matson, PA; McCarthy, JJ; Corell, RW; Christensen, L; Eckley, N; Kasperson, JX; Luers, A; Martello, ML; Polsky, C; Pulsipher, A; Schiller, A (2003a) 'A framework for vulnerability analysis in sustainability science.' *Proceedings of the National Academy of Sciences* 100(14): 8074–8079
- Turner, BL II; Matson, PA; McCarthy, JJ; Corell, RW; Christensen, L; Eckley, N; Hovelsrud-Broda, G; Kasperson, JX; Kasperson, RE; Luers, A; Martello, ML; Mathiesen, S; Naylor, R; Polsky, C; Pulsipher, A; Schiller, A; Selin, H; Tyler, N (2003b) 'Illustrating the coupled human-environment system for vulnerability analysis: Three case studies.' *Proceedings of the National Academy of Sciences* 100 (14): 8080–8085
- UNDP (2003) *User's guidebook for the adaptation policy framework. Final draft*. New York: United Nations Development Programme
- UNDP (2004) *Adaptation policy frameworks for climate change. Developing strategies, policies and measures*, Lim, B; Spanger-Siegfried, E (eds). Cambridge: Cambridge University Press.
- UNDP (2007) *Human development report 2007/2008. Fighting climate change: Human solidarity in a divided world*. New York: UNDP
- UNEP (1992) *Earth Summit: Agenda 21 (Chapter 13: Managing Fragile Ecosystems: Sustainable Mountain Development)*. United Nations Conference on Environment and Development (UNCED), 3–14 June 1992, Rio de Janeiro, Brazil
- UNEP (2002a) *GEO-3: Global environmental outlook report 3*. London: Earthscan
- UNEP (2002b) *Assessing human vulnerability due to environmental change: Concepts, issues, methods and case studies*, UNEP/DEWA/RS.03-5. Nairobi: United Nations Environmental Programme
- UNEP (2007) *Global environmental outlook 4: Environment for development*. Nairobi: United Nations Environment Programme
- Vavilov, NI (1926) 'Studies on the origin of cultivated plants.' *Bulletin of Applied Botany* 16 (2): 405–35
- Veech, JA (2003) 'Incorporating socioeconomic factors into the analysis of biodiversity hotspots.' *Applied Geography* 23: 73–88
- Villa, F; McLeod, H (2002) 'Environmental vulnerability indicators for environmental planning and decision-making: Guidelines and applications.' *Environmental Management* 29: 335–348
- Vincent, K (2004) *Creating an index of social vulnerability to climate change for Africa*, Working Paper 56. Norwich: Tyndall Centre for Climate Change Research
- Vohra, CP (1981) 'Himalayan glaciers.' In Lal, JS; Moddie, AD (eds) *The Himalaya: Aspect of change*, pp 138–151. Delhi: Oxford University Press
- Watson, R (2005) 'Emissions reductions and alternative futures.' In Lovejoy, TE; Hannah, L (eds) *Climate Change and Biodiversity*. New Haven: Yale University Press
- Watson, RT; Noble, IR; Bolin, B; Ravindranath, NH; Verardo, DJ; Dokken, DJ (eds) (2000) *Land use, land-use change and forestry, A special report of the intergovernmental panel on climate change (IPCC)*. Cambridge: Cambridge University Press
- Watson, RT; Zinyoera, MC; Moss, RH (1998) *The regional impacts of climate change: An assessment of vulnerability*, A Special Report of IPCC Working Group II. Cambridge: Cambridge University Press
- WCS and CIESIN (2005) *Last of the wild project, 2005 (LWP-2): Global human footprint dataset (Geographic)*. Edition: version 2. Palisades: Socioeconomic Data and Applications Center (SEDAC), Columbia University
- WDPA Consortium (2006) *2006 world database on protected areas, (CD)*. IUCN and UNEP. www.unep-wcmc.org/wdpa (accessed June 2007)
- Webster, PJ; Magaña, VO; Palmer, TN; Shukla, J; Tomas, RA; Yanai, M; Yasunari, T (1998) 'Monsoons: Processes, predictability, and the prospects for prediction.' *J. Geophys. Res* 103: 14451–14510
- WEF (2003) *Annual report 2002/2003. Building trust, peace and reconciliation*. Geneva: World Economic Forum
- WGMS (2000) 'Glacier mass balance.' In Haerberli, W; Hoelzle, M (eds) *World Glacier Monitoring Service*. Zurich: ETH
- White, D; Minotti, PG; Barczak, MJ; Sifneos, JC; Freemark, KE; Santelmann, MV; Steinitz, CF; Kiestler, AR; Preston, EM (1997) 'Assessing risks to biodiversity from future landscape change.' *Conservation Biology* 11: 349–360
- Whiteman, D (2000) *Mountain meteorology*. Oxford: Oxford University Press
- Wickham, JD; Neill, RVO; Jones, KB (2000) 'A geography of ecosystem vulnerability.' *Landscape Ecology* 15: 495–504
- Wikramanayake, ED; Dinerstein, E; Robinson, JG; Karanth, U; Rabinowitz, A; Olson, D; Mathew, T; Hedao, P; Conner, M; Hemley, G; Bolze, D (1998) 'An ecology-based method for defining priorities for large mammal conservation: The tiger as case study.' *Conservation Biology* 12: 865–878

- Wilson, RJ; Gutierrez, D; Gutierrez, J; Monserrat, VJ (2007) 'An elevational shift in butterfly species richness and composition accompanying recent climate change.' *Global Change Biology* 13: 1873–1887
- Wikramanayake, ED; Carpenter, C; Strand, H; McKnight, M (eds) (2001a) *Ecoregion-based conservation in the Eastern Himalaya: Identifying important areas for biodiversity conservation*. Kathmandu: WWF Nepal
- WWF (2004) *Terrestrial ecoregions of the world, Version 2.0. Vector digital data*. Washington DC: WWF-US
- WWF (2005) *An overview of glaciers, glacier retreat, and subsequent impacts in Nepal, India and China*. Kathmandu: WWF-Nepal Program
- WWF (2006a) WildFinder: Online database of species distributions, ver. Jan-06. www.worldwildlife.org/WildFinder
- WWF (2006b) *Terrestrial ecoregions GIS database*. Washington DC: World Wildlife Fund. www.worldwildlife.org/science/data/terreco.ctm (accessed 12 June 2007)
- WWF and ICIMOD (2001b) 'Overarching human pressures on biodiversity in the Eastern Himalaya.' In Wikramanayake, ED; Carpenter, C; Strand, H; McKnight M (eds) *Ecoregion-based conservation in the Eastern Himalaya. Identifying important areas for biodiversity conservation*, pp 101–126. Kathmandu: WWF Nepal
- Xiao, XM; Melillo, JM; Kicklighter, DW; Pan, Y; McGuire, AD; Helirich, J (1998) 'Net primary production of terrestrial ecosystems in China and its equilibrium responses to changes in climate and atmospheric CO₂ concentration.' *Acta Phytocologica Sinica* 22(2): 97–118
- Xiao, G; Liu, W; Xu, Q; Sun, Z; Wang, J (2005) 'Effects of temperature increase and elevated CO₂ concentration, with supplemental irrigation, on the yield of rain-fed spring wheat in a semiarid region of China.' *Agricultural Water Management* 74(3): 243–255
- Xu, J; Shrestha, A; Vaidya, R; Eriksson, M; Hewitt, K (2007) *The melting Himalayas: Regional challenges and local impacts of climate change on mountain ecosystems and livelihoods*, ICIMOD Technical Paper. Kathmandu: ICIMOD
- Yin, YY (2006). *Vulnerability and adaptation to climate variability and change in western China*, AS25 Project Final Report to AIACC. Washington DC: International START Secretariat
- Yohe, G; Tol, RSJ (2002) 'Indicators for social and economic coping capacity: Moving toward a working definition of adaptive capacity.' *Glob Environ Change* 12: 25–40
- Yohe, G; Malone, E; Brenkert, A; Schlesinger, M; Meij, H; Xing Xiaoshi; Lee, D (2006) *A synthetic assessment of the global distribution of vulnerability to climate change from the IPCC perspective that reflects exposure and adaptive capacity*. New York: CIESIN, Columbia University
- Yunling He; Zhang Yiping (2005) 'Climate change from 1960 to 2000 in the Lancang river valley, China.' *Mountain Research and Development* 25 (4): 341–348
- Zorita, E; von Storch, H (1999) 'The analog method – A simple statistical downscaling technique: Comparison with more complicated methods.' *J Climate* 12: 2474–2489