Appendix B
Steering Committee and Speaker Biographies

Richard Birdsey is the program manager for global change research at the USDA Forest Service Northeastern and North Central research stations. He is a specialist in quantitative methods for large-scale forest inventories and was a pioneer in the development of methods to estimate national carbon budgets for forestlands from forest inventory data. In his role as program manager, he is coordinating a national effort to improve the inventory and monitoring of forest carbon, to identify forest management strategies to increase carbon sequestration, to understand and quantify the prospective impacts of climate change on U.S. forests and forest products, and to develop adaptation strategies.

Sandra Brown is a senior program officer in the Ecosystem Services Unit at Winrock International and has spent more than 20 years conducting research on the role of forests in the global carbon cycle. Prior to joining Winrock she was a professor at the University of Illinois for 18 years. She received her B.Sc. in chemistry from the University of Nottingham, England, her M.S. in engineering sciences from the University of South Florida; and her Ph.D. in ecological engineering/systems ecology from the University of Florida, Gainesville.

Ann Camp is a lecturer and associate research scientist in the School of Forestry and Environmental Studies at Yale University. Prior to this position,

she was a research forester at the USDA Forest Service's Pacific Northwest Research Station. Her research includes the effects of biotic and abiotic disturbances on vegetation patterns at stand and landscape scales; interactions among disturbance agents and vegetation patterns, especially the roles of insects and pathogens in creating forest structures important to wildlife; management alternatives for dense, marginally economic stands of small-diameter trees; and the consequences of different management practices on ancillary forest resources. She is also interested in the ways climate change will affect forest development as mediated through impacts on individual tree species and amplified by disturbances such as fires and insect outbreaks. Dr. Camp received her B.S. from Rutgers University, M.F.S. from Yale University, and Ph.D. in silviculture and forest protection from the University of Washington.

Ruth DeFries is an associate professor at the University of Maryland, College Park; with joint appointments in the Department of Geography and the Earth System Science Interdisciplinary Center. Her research investigates the relationships between human activities, the land surface, and the biophysical and biogeochemical processes that regulate the Earth's habitability. She is interested in observing land cover and land use change at regional and global scales with remotely sensed data and exploring the implications for ecological services such as climate regulation, the carbon cycle, and biodiversity. She previously was employed by the National Research Council. Dr. DeFries obtained a Ph.D. from the Department of Geography and Environmental Engineering at Johns Hopkins University and a bachelor's degree from Washington University with a major in earth science.

Evan DeLucia is a professor of plant biology at the University of Illinois, Urbana-Champaign, where he also serves as head of the Department of Plant Biology. After completing his B.A. at Bennington College and serving as a teaching fellow at Phillips Andover Academy, he received an M.F.S. from Yale and a Ph.D. from Duke. The adaptive physiology of trees and the role of forests in the global carbon cycle are at the center of Dr. DeLucia's research interests.

Christopher Field is director of the Carnegie Institution's Department of Global Ecology and professor by courtesy in the Department of Biological Sciences at Stanford University. Trained as an ecologist, Field has conducted environmental research from tropical rainforests to deserts to alpine tundra. He is a specialist in global change research. An author of more than 100 scientific papers, Field is a member of the National Academy of Sciences and a leader in several national and international efforts to provide the scientific foundation for a sustainable future.

Christine Goodale is an assistant professor in the Department of Ecology and Evolutionary Biology at Cornell University. Goodale was previously a postdoctoral fellow at the Woods Hole Research Center and the Carnegie Institute of Washington. Her research interests include land use history and forest carbon and nitrogen cycling. She received her Ph.D. and M.S. in natural resources from the University of New Hampshire and an A.B. in biology/geography from Dartmouth College.

Perry R. Hagenstein is a consultant on resource economics and policy and president of the Institute for Forest Analysis, Planning, and Policy, a nonprofit research and education organization. Previously, he was executive director of the New England Natural Resources Center and served as a Charles Bullard Research Fellow at the John F. Kennedy School of Government at Harvard. He also served as senior policy analyst for the U.S. Public Land Law Review Commission and was a principal economist for the USDA Forest Service. Dr. Hagenstein received his B.S. from the University of Minnesota, M.F. from Yale University, and Ph.D. in forest and natural resources economics from the University of Michigan.

Jason G. Hamilton is an assistant professor in the Department of Biology at Ithaca College. He received a Ph.D. in plant ecology (1997) and a Ph.D. in physical chemistry (1991) from the University of California, Santa Barbara. Hamilton is currently conducting research on the effects of elevated atmospheric CO_2 on forest ecosystem function and production and the interactions among altered atmospheric composition, leaf herbivores, and leaf physiological function in forest agricultural systems.

Bryan Hannegan is associate director for energy and transportation at the White House Council on Environmental Quality, where he coordinates federal environmental efforts in the areas of energy, climate change (science and technology), and transportation. Prior to joining the Executive Branch, Hannegan served as staff scientist for the U.S. Senate Committee on Energy and Natural Resources, where he was the principal staff member for national energy policy, energy efficiency, renewable energy, and climate change policy. He holds a Ph.D. in earth system science and an M.S. in mechanical engineering from the University of California at Irvine and a B.S. in meteorology from the University of Oklahoma.

Linda S. Heath is a project leader and research scientist with the USDA Forest Service Northeastern Research Station, Forest Carbon Dynamics and Estimation Research Work Unit in Durham, New Hampshire. She has worked for 10 years in the area of modeling carbon storage and flux between terrestrial ecosystems and the atmosphere for forests and forest products of the United States using

models and forest inventory data. Heath is currently a lead author on the Intergovernmental Panel on Climate Change activity on Good Practice Guidance for Greenhouse Gas Inventories and is the criterion lead for carbon for the Interagency "State of the Nation's Forest" report addressing the Montreal Process Criteria and Indicators of Sustainability for U.S. forests. She has a doctorate in quantitative resources management from the University of Washington and degrees in forestry and forest management from the University of Illinois.

William Hohenstein is director of U.S. Department of Agriculture's Global Change Program Office, Office of the Chief Economist. The Global Change Program Office provides coordination and policy development support. It serves as the focal point for all support to the secretary of agriculture on the causes and consequences of global change, as well as strategies for addressing them. Before becoming director, Mr. Hohenstein served as a division director in Environmental Protection Agency's PA's National Center for Environmental Economics. He also represented the United States at several international negotiations on climate change and served as a U.S. representative to the Intergovernmental Panel on Climate Change.

Richard A. Houghton is a senior scientist at the Woods Hole Research Center. His research interests include the global carbon cycle, the effects of land use change on carbon storage, and the interaction between terrestrial ecosystems and climate. He has participated in all of the Intergovernmental Panel on Climate Change Assessments on Climate Change and the IPCC Special Report on Land Use, Land Use Change, and Forestry. He received his Ph.D. in ecology from the State University of New York at Stony Brook in 1979.

George Hurtt is an assistant professor at the University of New Hampshire's Institute for the Study of Earth, Oceans, and Space. He earned a B.A. in biology from Middlebury College, an M.S. from the University of Connecticut, and an M.A. and a Ph.D. in ecology and evolutionary biology from Princeton University. His current research is focused on the development and application of a new terrestrial ecosystem model that essentially takes a "statistical mechanics" approach to scaling local dynamics to global scales. Hurtt is involved in several collaborative research projects including the Large Scale Biosphere-Atmosphere Experiment in South America, an interdisciplinary science investigation using National Aeronautical and Space Administration's Earth Observing System, and efforts to develop global carbon system and land surface models. He is a coauthor and scientific spokesperson for the New England Regional Assessment of the Potential Consequences of Climate Variability and Change and has testified to both the New Hampshire Legislature and Congress on the science of global change.

Cesar Izaurralde is a staff scientist with the Joint Global Change Research Institute, a collaboration between Pacific Northwest National Laboratory (PNNL) and the University of Maryland. His research focuses are in the areas of modeling the impacts of climate change and variability on terrestrial ecosystems and water resources and carbon sequestration in, and greenhouse gas emissions from, agricultural soils. Previously Izaurralde served as chair of resource conservation with the Department of Renewable Resources, University of Alberta, Canada. In his native country of Argentina, he studied at and later joined the Facultad de Ciencias Agropecuarias at la Universidad Nacional de Cordoba. Izaurralde has received two PNNL Outstanding Performance Awards (1999, 2002) and a Fulbright fellowship (1980-1981). He was an invited professor at la Universidad Nacional de Cordoba (1996, 1999) and at la Universidad Catolica de Cordoba (1977-1980), both in Argentina. He holds adjunct appointments with the Departments of Natural Resource Sciences and Geography at the University of Maryland.

Jennifer C. Jenkins is a visiting assistant professor at the Gund Institute for Ecological Economics at the University of Vermont. His current research relates to developing and implementing methods for large-scale assessment of forest and nonforest carbon cycling and sequestration rates. Recent projects have included using monitoring and inventory data, remote sensing, ecosystem modeling, and field techniques to understand and predict terrestrial carbon cycles in the northeastern United States and mid-Atlantic regions. Jenkins previously was a research forester with the USDA's Forest Service. She received a Ph.D. in ecosystem ecology from the University of New Hampshire, a master's of forest science from Yale University, and a B.A. in biology with certificates in Environmental Studies and Education from Dartmouth College.

John M. Kimble is a research soil scientist at the National Soil Survey Center, Soil Survey Division, with the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). He received his B.S. in agronomy-soils from Ohio State University and his M.S. and Ph.D. in soil chemistry from the University of Vermont. He has been active in the soil global climate-change related activities at NRCS for about 15 years. His interests have focused on the measurement and verification of soil carbon (soil organic carbon and soil inorganic carbon), agronomic practices that help to increase carbon sequestration, and procedures used to scale point data to larger areas. Currently he is a member of the Council of the International Union of Soil Sciences (IUSS) and a member its Executive Committee. He has represented the IUSS to the International Geosphere – Biosphere Programme and many other international groups. He has been active in the Intergovernmental Panel on Climate Change (IPCC), contributed to the special report related to the Kyoto Protocol, and was a member of U.S. National Assessment's agriculture team.

Dina Kruger is chief of the methane and sequestration branch for the U.S. Environmental Protection Agency in the Voluntary Programs Division. She is responsible for managing voluntary programs aimed at reducing methane emissions from landfills, coal mines, the natural gas system, and agricultural sources. She also manages the agency's work in the area of carbon sequestration in forests and agricultural lands and a variety of economic and policy projects related to non-CO_2 greenhouse gases. She currently serves as the U.S. government representative to the IPCC Task Force Bureau on Greenhouse Gas Emission Inventories and served as co chair of the IPCC's recently completed report, *Good Practice in Greenhouse Gas Emission Inventories*. Ms. Kruger has an M.A. from the Energy and Resource Group at the University of California, Berkeley, and received her B.A. from the University of Washington.

Ian Roy Noble is a senior advisor at the World Bank on carbon sequestration through land use, land use change, or forestry activities and on adaptation to climate change. He is on secondment from his position as professor of global change research at the Australian National University. His research has focused on ecosystem dynamics and applying results to land management and sustainable development. He is past chair of the International Geosphere-Biosphere Programme's Global Change and Terrestrial Ecosystems and served as a senior author and editor of several assessments by the Intergovernmental Panel on Climate Change. He obtained his Ph.D. in modeling arid grazing systems from the University of Adelaide, South Australia.

Dennis Ojima is a senior research scientist at the Natural Resource Ecology Laboratory and an assistant professor in the Rangeland Ecosystem Science Department at Colorado State University. In 1999 he was selected as an Ecological Society of America's Aldo Leopold Leadership Fellow and contributed to several chapters of the 1995 Intergovernmental Panel on Climate Change. Previously, he was a program officer with the International Geosphere-Biosphere Program. His research activities address ecological issues related to global and regional land use and climate changes on ecosystem dynamics, studies of the interaction between terrestrial ecosystems and the atmosphere, the impact of changes in land management on trace gas exchange, and the development of a global ecosystem model. Ojima received his B.A. and M.S. in botany from Pomona College and the University of Florida and his Ph.D. from the Rangeland Ecosystem Science.

Christopher Potter is a research scientist with the Ecosystem Science and Technology Branch of the National Aeronautics and Space Administration's Ames Research Center. He came to NASA as a National Research Council associate. He and his colleagues were awarded the agency's Public Service Medal for development of the first computer model for global ecosystem

exchange of all major biogenic trace gases with the atmosphere. He holds a Ph.D. and a master's degree in forest ecology from Emory University. He is the author of more than 50 peer-reviewed journal articles and numerous book chapters. He currently serves on scientific steering committees for NASA earth science planning and field campaign implementation.

Michael J. Prather is professor and Kavli chair in the earth system science department at the University of California, Irvine. He received his Ph.D. in astronomy and physics from Yale University in 1976. Prather has played a significant role in the International Panel on Climate Change's second and third assessments and special report on aviation and in the World Meteorological Organization's ozone assessments (1985-1994). He is a fellow of the American Geophysical Union and a foreign member of the Norwegian Academy of Science and Letters and has served on several National Research Council committees, including the Committee for Review of the U.S. Climate Change Science Program Strategic Plan and the Panel on Climate Variability on Decade-to-Century Timescales.

James T. Randerson is an assistant professor with the Department of Earth System Science, University of California, Irvine. Randerson is a biogeochemist interested in global carbon and nutrient cycles and uses atmospheric trace gas observations, satellite data, and models to study the biosphere. He is currently investigating pathways of rapid carbon loss from terrestrial ecosystems including fire emissions and permafrost degradation. He received a Ph.D. in biological sciences and a B.S. in chemistry from Stanford University.

William H. Schlesinger is James B. Duke Professor of Biogeochemistry and dean of the Nicholas School of the Environment and Earth Sciences at Duke University. Schlesinger received his A.B. from Dartmouth and Ph.D. from Cornell. He is the author or coauthor of over 150 scientific papers and a widely adopted textbook, *Biogeochemistry: An Analysis of Global Change* (Academic Press, 2nd ed., 1997). He was elected a member of the American Academy of Arts and Sciences in 1995 and the National Academy of Sciences in 2003. He has testified before U.S. House and Senate committees on a variety of environmental issues, including preservation of desert habitats and global climate change. Schlesinger was elected president of the Ecological Society of America for 2003-2004.

Nathan L. Stephenson is a research ecologist with the U.S. Geological Survey's Western Ecological Research Center. Previously, he worked as an ecologist at the National Park Service, establishing a long-term research program as a "place-based" scientist in the Sierra Nevada. His research interests include the climatic controls of forest dynamics, carbon dynamics, and

vegetation distribution. Stephenson received his Ph.D. in plant ecology from Cornell University.

Eric Sundquist is a research geologist at the U.S. Geological Survey where he conducts research on relationships between global carbon cycle and atmospheric carbon dioxide. His current research interests include past natural variations in atmospheric carbon dioxide, relationships between oceanic and terrestrial carbon cycling, effects of human land use on carbon dioxide, effects of erosion and sediment transport on carbon dioxide budgets, and exchange of carbon dioxide between soils and the atmosphere. Sundquist received his Ph.D. and A.M. in geology from Harvard University and his B.A. in geology from Pomona College. He is currently on the Climate System Model Advisory Board at of the National Center for Atmospheric Research, is chair of the Committee on Global Environmental Change at the American Geophysical Union, and is a member of the U.S. Carbon Cycle Scientific Steering Group.

Robert T. Watson is the World Bank's senior spokesperson on climate change. He joined the bank in 1996 as senior scientific advisor in the environment department and was later appointed director of the same department. He is now the bank's chief scientist and was formerly chairman of the Intergovernmental Panel on Climate Change. Before joining the World Bank, he was associate director for environment in the Office of Science and Technology Policy, Executive Office of the President. Prior to joining the Clinton White House, he was director of the science division and chief scientist for the Office of Mission to Planet Earth at the National Aeronautics and Space Administration. Mr. Watson has played a key role in the negotiation of global environment conventions and the evolution of the Global Environment Facility.

Tristram West is a research scientist at Oak Ridge National Laboratory and a participant in the Department of Energy's Consortium for Enhancing Carbon Sequestration in Terrestrial Ecosystems. He received a B.S. in agriculture from the University of Kentucky and an M.S. and a Ph.D. in natural resources and agronomy from Ohio State University. West studies changes in terrestrial carbon dynamics associated with changes in land use and management and also the impact of carbon sequestration policies on net greenhouse gas emissions. His current research includes the global quantification of carbon accumulation and loss rates associated with a number of terrestrial carbon sequestration options. West collaborates with a number of federal, state, and academic organizations, and he has published several papers on terrestrial carbon sequestration and full carbon accounting.