

Preface

Forest, agricultural, rangeland, wetland, and urban landscape systems have significant potential for sequestering large amounts of carbon through improved land management practices and by increasing productivity. There are numerous methods for measuring, monitoring, and analyzing current and potential stores of carbon in forest, and agricultural systems. However, there are few standards for carbon accounting. There is a need for developing strategies and methods for increasing terrestrial carbon sequestration.

The 43 research papers which are published in *Environmental Pollution* Special Issue: Terrestrial Carbon (Part I) and Supplement: Terrestrial Carbon (Part II) were presented at the Advances in Terrestrial Ecosystem Carbon Inventory, Measurements, and Monitoring Conference held in Raleigh, North Carolina on 3–5 October, 2000. The conference was sponsored by the USDA Forest Service, the USDA Agriculture Research Service, the USDA National Resource Conservation Service, the US Department of Energy, the National Council for Air and Stream Improvement, and the National Aeronautics and Space Administration. It builds upon recent conferences and workshops on carbon sequestration. The findings offer an opportunity to extend our knowledge, to exchange new research ideas,

and to synthesize results in terrestrial carbon stock inventory and accounting. It brought forest, agriculture, rangeland, wetland, and urban landscape researchers together to share information and create opportunities for collaboration and advancement in these areas.

Unlike most meetings where research results are separated by the ecosystem of study, the presentations of research findings at this meeting were purposefully integrated across ecosystems study areas. Carbon research from five ecosystems study areas was presented in several of the sessions. Instead of dividing the sessions by ecosystems, we divided the sessions based on aboveground or belowground carbon processes, biological or economic carbon accounting, and carbon storage in products. The intent of the meeting was to increase the amount of inter-ecosystem carbon research exchange. Potentially, this could lead to more uniform research methods and studies across the various ecosystems.

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