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## **Indicators of Carbon Storage in U.S. Ecosystems: Baseline for Terrestrial Carbon Accounting**

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Policymakers, program managers, and landowners need information about net terrestrial carbon sequestration in forests, croplands, grasslands, and shrublands to understand the cumulative effects of carbon trading programs, expanding biofuels production, and changing environmental conditions in addition to agricultural and forestry uses. Objective information systems that establish credible baselines and track changes in carbon storage can provide the accountability needed for carbon trading programs to achieve durable carbon sequestration and for biofuels initiatives to reduce net greenhouse gas emissions. A multi-sector stakeholder design process was used to produce a new indicator for the 2008 *State of the Nation's Ecosystems* report that presents metrics of carbon storage for major ecosystem types, specifically change in the amount of carbon gained or lost over time and the amount of carbon stored per unit area (carbon density). These metrics have been developed for national scale use, but are suitable for adaptation to multiple scales such as individual farm and forest parcels, carbon offset markets and integrated national and international assessments. To acquire the data necessary for a complete understanding of how much, and where, carbon is gained or lost by U.S. ecosystems, expansion and integration of monitoring programs will be required.

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