**Forest Carbon Report: Pennsylvania**

**Trends in Pennsylvania**

- Forest ecosystem carbon has increased from 1450 million metric tons in 1990 to 1600 million metric tons in 2019.

**Carbon across PA ownerships**

- **Private**
- **State and local**
- **National Forest**
- **Other federal**

Carbon in live aboveground trees (million metric tons)

**Carbon pools in PA forests**

- **Soil (mineral)**
- **Aboveground biomass**
- **Belowground biomass**
- **Litter**
- **Dead wood**
- **Soil (organic)**

Carbon stocks (million metric tons)

**Carbon Definitions**

- **Carbon pool**: a component of the forest that can gain or lose carbon over time.
- **Carbon storage**: the amount of carbon retained in a forest and/or carbon pool.
- **Carbon sequestration**: the process by which trees and plants use carbon dioxide and photosynthesis to store carbon as biomass.

**Units**: Forest carbon is typically expressed in US tons per acre or metric tons (1 metric ton = 1.10 US tons).

**Quick Facts on Forest Carbon**

- In Pennsylvania, forests, urban trees, and harvested wood products:
  - Remove 9% of all CO2 emissions in the state. (Across the US, this value is 14%.)
  - Store the equivalent of 27 years of all CO2 emissions produced in the state.
- Pennsylvania has 16.9 million acres of forests and is 59% forested.
- Pennsylvania forest carbon stocks have increased by 12% from 1990 to 2019.
- Average carbon density in aboveground trees across Pennsylvania forests is 33.9 US tons per acre.

**Sources**: