



Forests Store Greenhouse Gases

FORESTS PLAY AN IMPORTANT ROLE IN THE GLOBAL CARBON CYCLE. FORESTS IN THE UNITED STATES CONTAIN ABOUT 50 BILLION METRIC TONS OF CARBON, WHICH IS EQUIVALENT TO ALMOST 40 YEARS OF U.S. CARBON DIOXIDE EMISSIONS FROM FOSSIL FUELS.

Forests Remove Carbon from the Atmosphere

According to a study conducted by the U.S. Forest Service, managed forests currently remove 300 million metric tons of carbon each year—equivalent to about 17 percent of total annual U.S. greenhouse emissions. This is equivalent to removing the carbon dioxide emissions from 235 million automobiles on the road per year.

The world's 3.5 billion hectares of growing closed-canopy forests sequester and store many billions of tons of carbon above and below the ground. Known as "carbon sequestration," this process begins when growing trees absorb carbon dioxide (CO₂) from the atmosphere and emit oxygen. Using solar energy, the process of photosynthesis transforms carbon dioxide, along with water and nutrients, into wood fibers in growing trees.

Managed forests, productivity improvements, and the creation of new forests around the world are increasing the amount of CO₂ being removed from the atmosphere.

Managed Forests Store More Carbon

Because carbon is sequestered in growing trees, the most economically sustainable and environmentally responsible course of action is to manage forests for long-term productivity and sustainability. The American forest and paper industry is leading the way toward sustainable forest management through practices, principles and standards that promote the management and conservation of forest resources. Active and sustainable forest management sequesters and stores more carbon than preserving a forest forever or extending a rotation beyond its biologic maturity. Active forest management is essential to maintaining positive carbon sequestration in the forest sector over the long-term.

Role of Industry

Forests provide enormous benefits. Only recently has carbon dioxide removal by forests been recognized as a major co-benefit to the environment in addition to wildlife habitat, water quality, recreation, aesthetics, and other resource amenities. The forest industry has a unique role in the carbon cycle. From the initial establishment of forests, through harvesting, wood and paper processing, using biomass fuels derived from a renewable resource to power the manufacturing facilities and recycling, the carbon chain is continuous and interconnected.

