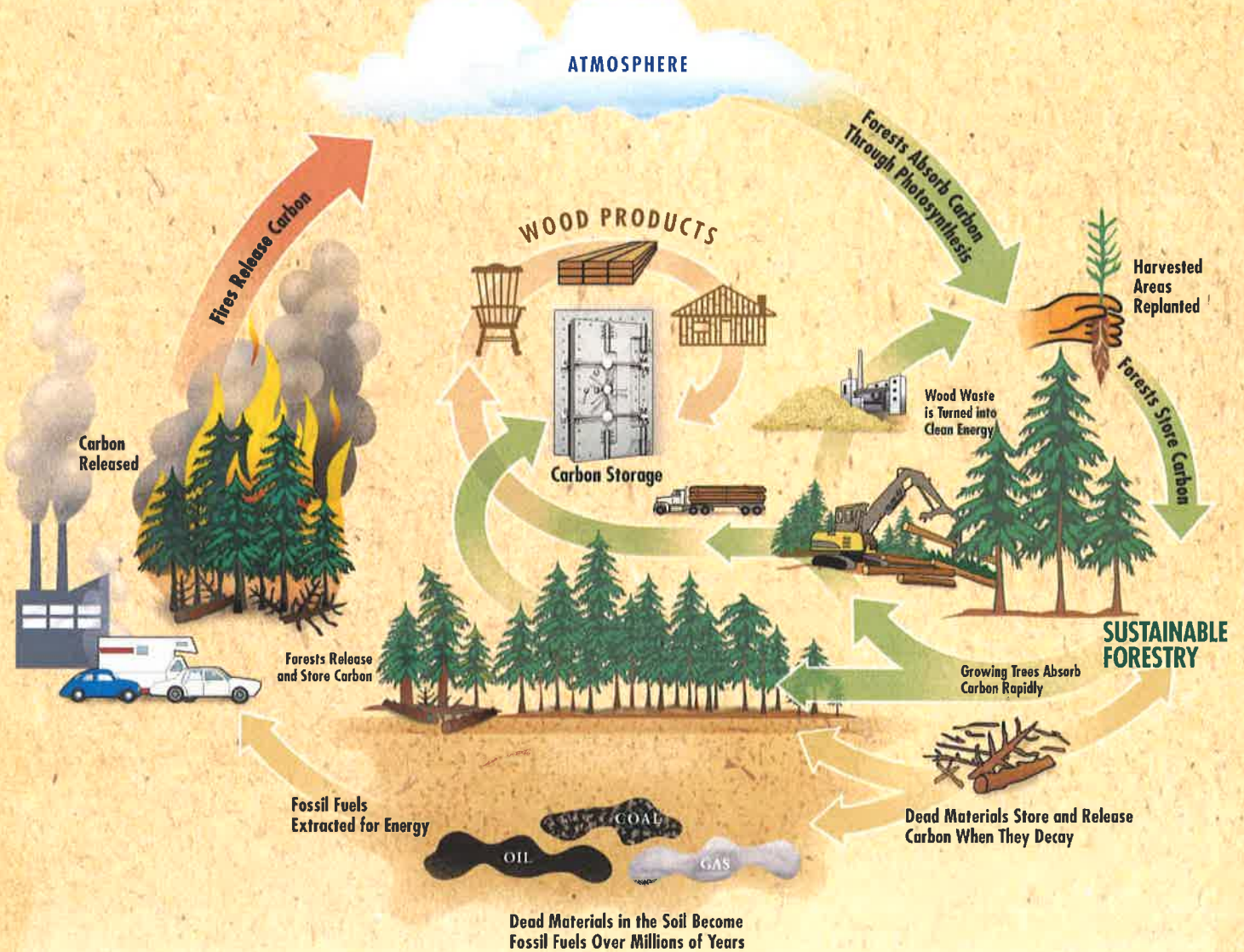


# The Carbon Cycle

FORESTRY NEVER LOOKED SO COOL



### Carbon Released

Carbon is released into the atmosphere from power plants, factories, cars and other fossil fuel users. Although living trees absorb carbon through photosynthesis, they release some of it back to the atmosphere through respiration and when they die and decay. Forests also emit carbon to the atmosphere when they burn. Converting wood waste to clean energy reduces the need for fossil fuels. The amount of carbon in the atmosphere is higher now than at any time in the last 650,000 years.

### Carbon Absorbed

Trees absorb carbon through photosynthesis over their lifetime. For a period after harvest or fire, decomposing tree trunks, roots and other material release more carbon into the atmosphere than can be absorbed by new trees. As they grow, the trees again will absorb more carbon than is released, and the cycle repeats as long as forests occupy the site. Forests lose their ability to absorb carbon when forestland is converted to non-forest uses such as development.

### Carbon Stored

As a tree grows, it stores carbon in its trunk, branches and roots. Through careful management, a forest's carbon storage can be enhanced. Durable wood products such as lumber and furniture continue to store the carbon absorbed by trees. Managing forests sustainably, retaining forestlands in forest uses and producing wood products efficiently can all enhance the role of forests and wood products in offsetting carbon emissions from the burning of fossil fuels.

Oregon Forest Resources Institute

