

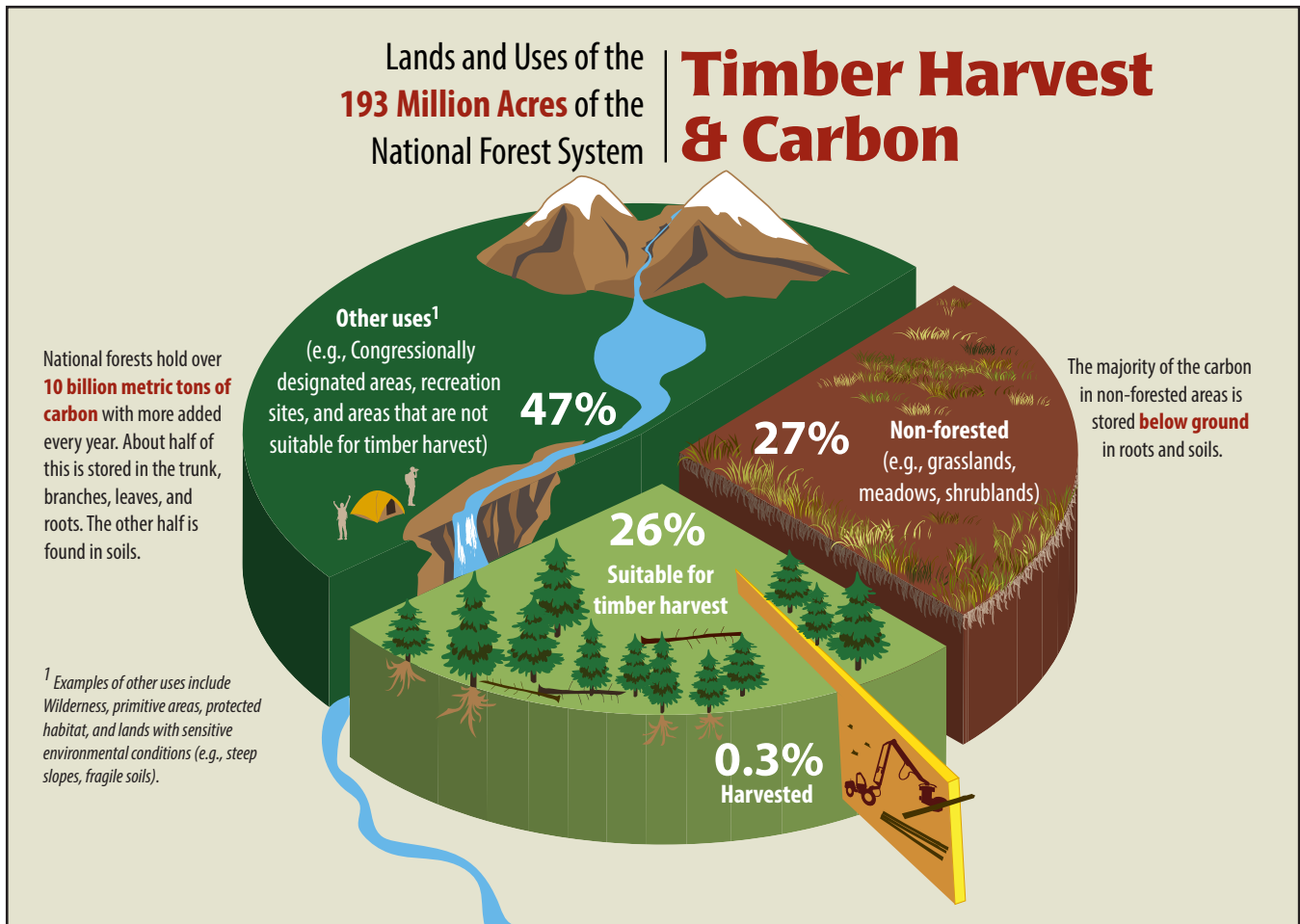
Office of Sustainability & Climate

# Timber Harvest & Carbon

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Active management of forests has been woven into the fabric of U.S. Forest Service conservation since Congress set aside the first national forest reserves in 1897. Through a variety of activities ranging from timber harvesting to tree planting to building trails, the Forest Service manages for multiple uses to meet the needs of a diverse public. We provide world-class recreation, livestock grazing, a clean and abundant water supply, wildlife habitat, and wood fiber while sustaining the health, productivity, and diversity of our national forests and grasslands.

Carbon uptake and storage are also benefits that the Forest Service considers important to the nation. In the face of a changing climate—with new records nearly every year for extreme temperature, drought, storms, and wildfire—the Forest Service continues to improve our understanding of how management actions affect complex ecological processes, such as the interface between timber harvest and carbon sequestration and storage.



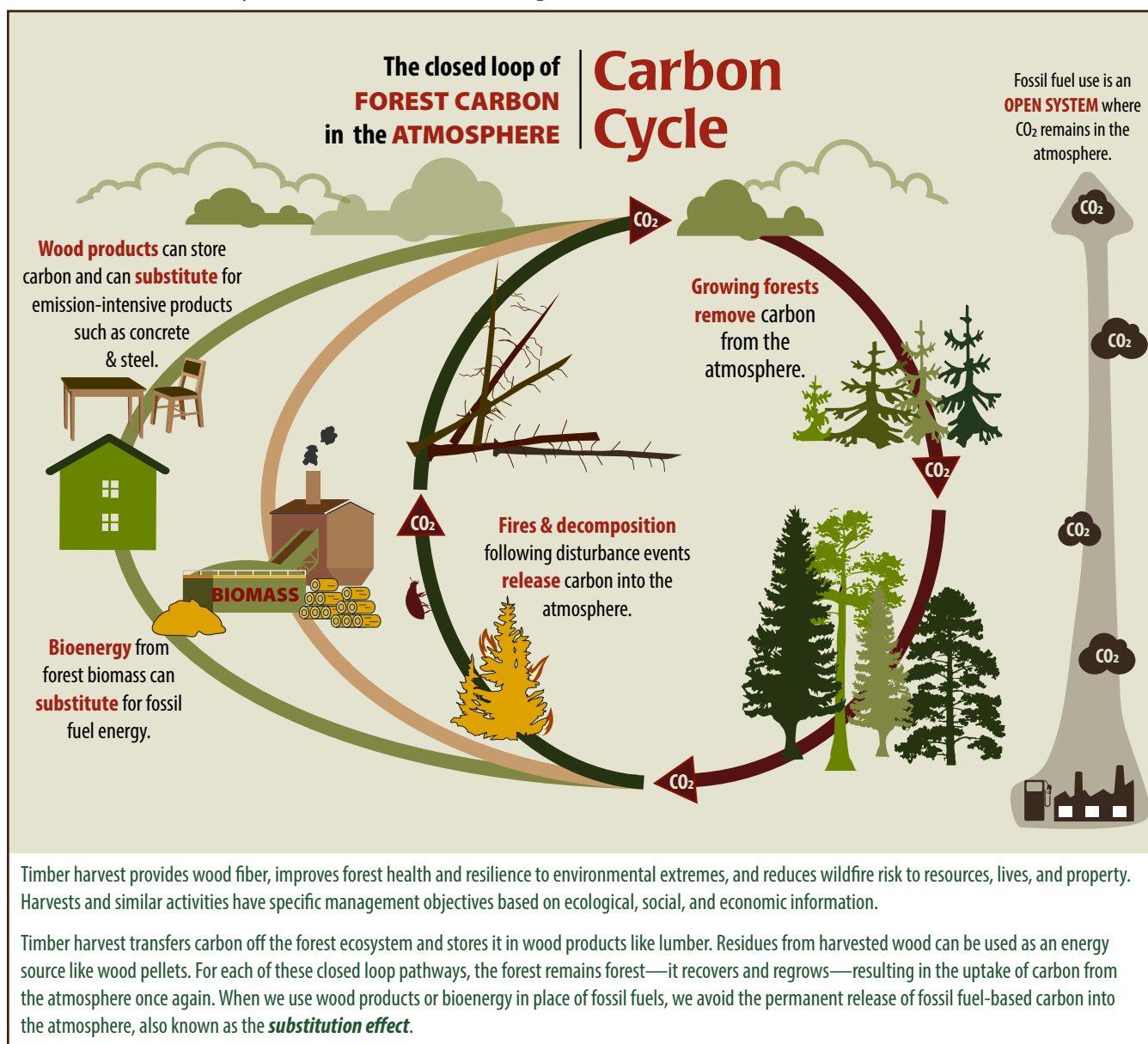
## Carbon on National Forests

Under current policy, our national forests and grasslands are required to consider forest carbon when revising their land management plans. Healthy forests have the potential to remove and store large quantities of carbon from the atmosphere. This inherent capability and our ability to enhance it through management activities is capturing the public's attention as a potential means to reduce the impacts of climate change.

## Carbon and Timber Harvest

Harvesting and the use of harvested wood products can play an important role in reducing carbon emissions while managing healthy forests. According to the *International Panel on Climate Change*, the best way to explain the effects of forest management on the atmosphere is to consider what the atmosphere actually "sees" in terms of carbon entering or leaving. This means we need to examine how management influences forest carbon stocks, the emissions associated with harvesting activities, and how carbon is stored in harvested wood products.

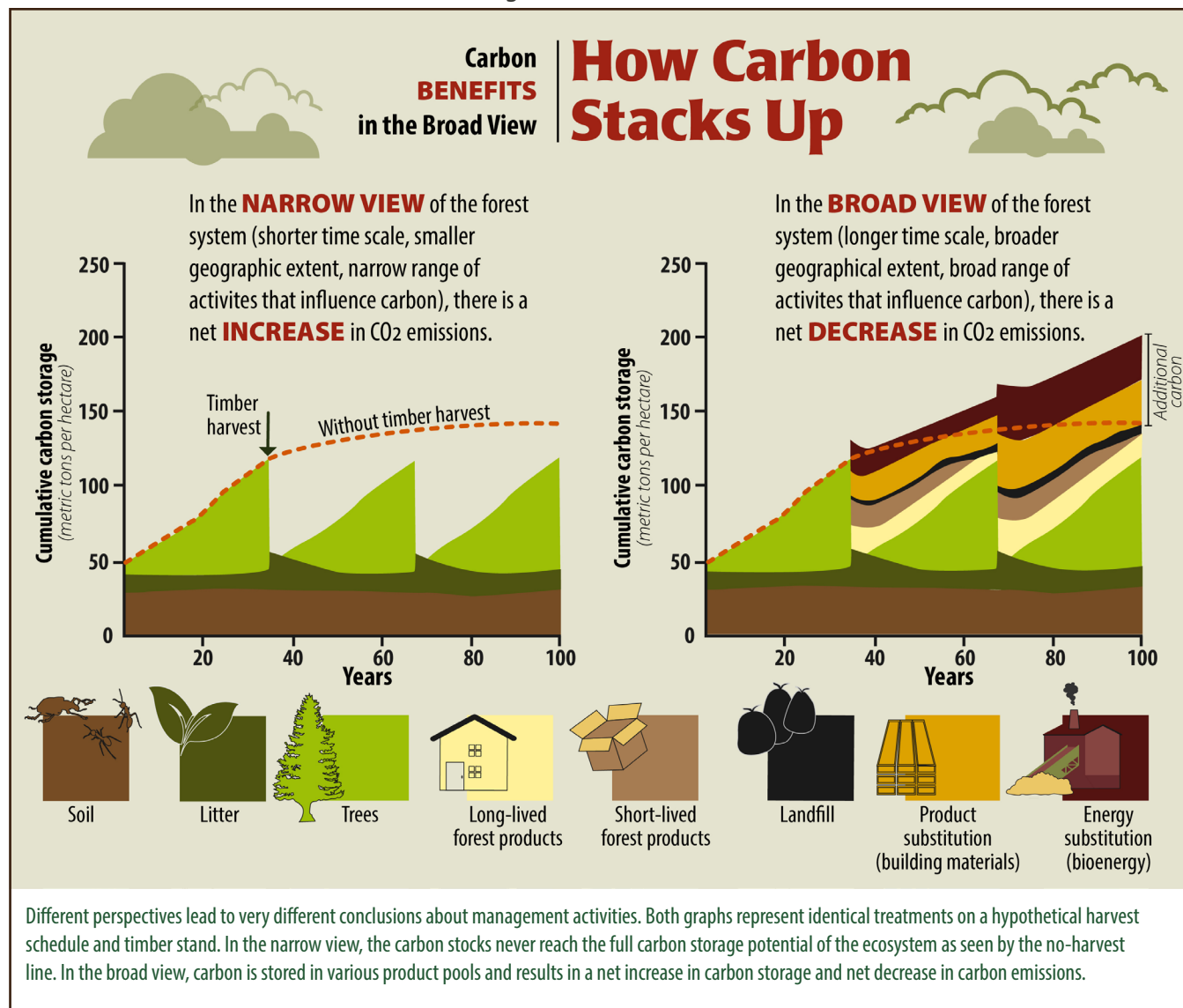
This perspective also considers whether there is an associated permanent change in land use or land cover that will alter the ability of the harvested area to regrow as a forest and continue to remove and store carbon



from the atmosphere in the future. Globally, scientists agree that reducing conversion of forested land to non-forest can reduce emissions. National forest system lands provide a buffer against land use change, keeping forests as forests.

Increased risk of carbon loss through disturbances—such as wildfires and insect epidemics—can undercut our efforts to maintain or increase carbon storage. Our primary tools in addressing these risks are by reducing the amount of hazardous fuels and the number of trees on certain acres.

Timber harvest initially reduces the amount of carbon on the forest but can transfer carbon to wood products or energy use, and increase productivity and health of the trees that remain. When considering the whole system—forest carbon, use of forest products, and risks from environmental extremes—carbon emissions can be much lower than if the forest were unmanaged.



### Questions About Forest Carbon? Contact Us!

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### Visit our website:

<https://www.fs.fed.us/managing-land/sc/carbon>

### Forest Service employees can visit our internal website:

<https://usdagcc.sharepoint.com/sites/fs-nfs-osc/Pages/Carbon.aspx>