

An aerial photograph of a vast, dense forest of tall, green coniferous trees. The trees are packed closely together, creating a rich, textured canopy. The lighting is bright, highlighting the vibrant green of the needles. The forest extends to the horizon, with a few thin tree trunks visible in the mid-ground.

CLIMATE SMART FORESTRY

A working definition of climate-smart forestry



What is Climate Smart Forestry?

Climate-smart forestry (CSF) increases forest resilience in the face of climate change and sequesters and stores more carbon over time when compared to conventional practices.

The net effect of CSF is to reduce greenhouse gas concentrations in the atmosphere and enhance the health of forests and the multiple values they deliver. CSF promotes a wide array of services and goods that forests provide, including community well-being, local economic vitality, watershed protection, biodiversity, and production of wood and fiber.

There is a spectrum of forest management from more to less climate smart, not an either-or distinction. CSF entails ongoing improvements over conventional practices without a fixed end point, as understanding of climate adaptation and forest dynamics evolves. Its practices go beyond the minimum requirements of local law to produce greater climate benefits.

Even as CSF is tailored to each ecological and social setting where it is practiced, it improves outcomes across these three dimensions over the long term:

1. **Mitigation:** Increasing storage of carbon in forest ecosystems and wood products, and reducing emissions from forest operations.
2. **Adaptation:** Maintaining or building ecological integrity and diversity that are the basis for resistance and resilience as the climate continues to change.
3. **Equity:** Addressing issues of equity and climate justice, improving community well-being and respecting the rights of Indigenous peoples. To be viable and sustainable, forestry must address how social and economic benefits and impacts are distributed among landowners, workers, and communities.

Forest practices that improve one of the above dimensions often produce improvements in the other, but this is not always the case in the short term. For example, restoration forestry that increases the health and resilience of degraded or overcrowded forests may result in a temporary reduction in forest carbon stocks. Where those imperatives conflict, CSF reflects a preference for the long term.

CSF requires a commitment to continuous improvement because the climate is changing and our knowledge base is growing. Consequently, there is no universal or static set of criteria that characterizes CSF. This said, as compared with common practice, the following practices are often associated with it, though specific applications vary with forest type and geography:

- a. Reducing the average size of harvest openings, increasing live-tree retention, and lengthening harvest rotations;
- b. Managing for a diversity of tree sizes, ages, and native species that make up multiple forest conditions and habitats;
- c. Thinning unnaturally dense and fire-prone forest stands, and restoring the capacity to withstand natural disturbances using prescribed fire and other means;
- d. Protecting water quality and aquatic habitat with ecologically appropriate buffers along streams and around wetlands;
- e. Reducing greenhouse gas emissions and biodiversity impacts associated with forest management and the application of chemical fertilizers, herbicides, and pesticides;
- f. Protecting high conservation value forests, including but not limited to old growth, and protecting and restoring habitat for imperiled, threatened and endangered species;
- g. Understanding, respecting, and upholding the rights and sovereignty of tribal nations and Indigenous peoples through early and ongoing consultation and co-stewardship of cultural and natural resources¹; and
- h. Ensuring communities most impacted by forestry activities have a meaningful voice in decision-making and benefit equitably from the outputs derived from them.

Endnote:

1. Popkin, Gabriel. 2021. 'Forest gardens' show how Native land stewardship can outdo nature. National Geographic. <https://www.nationalgeographic.com/environment/article/forest-gardens-show-how-native-land-stewardship-can-outdo-nature>

This initial draft is designed to engage people in discussion.

If you would like to learn more about the Climate Smart Wood Group and get involved - including opportunities to refine these documents - please visit our website: www.climatesmartwood.net.