



Forest Offset Projects in a Carbon Trading System

A Position of the Society of American Foresters

This position statement was adopted by the Council of the Society on March 3, 2012, and revised and renewed on June 7, 2018. This position statement will expire in 2023 unless, after subsequent review, it is further extended by the SAF Board of Directors.

Position

The Society of American Foresters (SAF) supports broad opportunity for forest landowners to engage in the mitigation of carbon dioxide emissions. SAF believes that well-designed and professionally implemented forest carbon offset projects provide real, additional, and permanent greenhouse gas (GHG) emission reduction benefits that combat climate change. The same ethic that underlies our positions on sustainable forest management underlies our position on forest carbon offsets; that is to ensure we manage our natural resources in a way that meets the needs of the present without compromising the ability of future generations to meet their own needs. Forest carbon offset programs should be included in either voluntary or regulatory markets.¹ Both types of offset program sequester greenhouse gases and provide co-benefits such as timber and nontimber products, recreation, fish and wildlife habitat, forage, biomass energy, clean water, and cultural and spiritual values that benefit forestland owners and society. The revenues provided to forestland owners through carbon markets can be one effective strategy to help maintain forests as forests, avoiding conversion to alternative land uses such as real estate development while promoting forest stewardship and sustainability of forests, and ensuring forest productivity. The SAF supports the creation and maintenance of stable, predictable forest carbon offset markets that reflect applicable, current, efficient, accurate, and scientifically defensible practices, including practical accounting for carbon stored in harvested wood products.

Purpose and Scope

The purpose and scope of this position statement includes the mainstream regulatory and voluntary forest carbon market standards development organizations in North America.

¹ The primary offset Registries in the US include: 1) Climate Action Reserve, <http://www.climateactionreserve.org/>, 2) American Carbon Registry, <http://americancarbonregistry.org/>, and 3) Verra Registry, <http://www.terra.org/>. Different programs exist within the registries that rely on different voluntary methodologies and regulatory protocols.

Issue

Forests play a significant role in moderating the impact of the increasing concentration of CO₂ in the atmosphere, but more can be done with forest management to help stabilize the climate. Currently, the equivalent of approximately 41 percent of the US power sector's greenhouse gas emissions are removed from the atmosphere and stored in US forests (US Environmental Protection Agency 2015). Researchers at the USDA Forest Service found that US forests will sequester as much as 30 percent less carbon by 2030 and 90 percent less by 2060 due primarily to declining forest health and conversion to alternative land uses such as real estate development (USDA Forest Service 2012). Forest offset markets can provide revenues to landowners to invest in forest health treatments and to help maintain forests in forestland.

Offset project policies and requirements vary significantly depending on the voluntary or regulatory emissions trading program utilized. But all forest offset programs have similar objectives – that offset projects need to be real, additional, quantifiable, verifiable, and permanent to the desired project life time horizon (Kelly and Schmitz 2016). Policies and requirements ensure emission reductions are *real* and *quantifiable* by creating clear guidelines for measuring these emission reductions in the forest. They ensure projects are *verifiable* by including third-party, qualified verifiers to review projects. *Additionality* policies require that forest offset projects reduce emissions of CO₂ more than would have occurred without a carbon market. *Permanence* policies ensure that the CO₂ emission reduction is maintained for a defined length of time (called the project life).

The more rigorous the policies and requirements for the above attributes, the more expensive and time-consuming forest carbon offset projects become. The economic feasibility of forest carbon offset project development is also sensitive to the number of project acres and carbon stocks per acre. Combined, these factors contribute to creating barriers of entry in voluntary and regulatory carbon offset markets for smaller forest ownerships and landowners who do not have access to upfront capital (Kerchner and Keeton 2015).

Forest offset projects may present substantial risks for landowners, including: 1) regulatory risks, 2) project risks, 3) contractual risks, and 4) market risks (International Emission Trading Organization 2017). Forest landowners must be able to evaluate and mitigate the risks associated with generating a stream of credits over the project life which includes the crediting period, the years of a project's life when credits can be generated; and the monitoring period, the years after the crediting period when the project cannot generate credits but continues to require monitoring expenses. Risks can be mitigated through development of a stable market and regulatory environment, and through careful design and implementation of project policies and requirements. All forest carbon offset project types require professional forestry expertise in forest inventory, modeling, and verification.

Background

Forest offset project types can generally be classified as afforestation/reforestation, improved forest management, and avoided deforestation. The volume and timing of the offset credits generated depends upon the project type and the rules established by the methodology (for voluntary markets) or protocol (for regulatory markets). These methodologies or protocols have specific requirements for establishing the forest inventory, the growth and yield models used to calculate net emission reductions (including calculations for leakage² and carbon stored in in-use harvested wood products³), reporting and monitoring, as well as requirements for verification and the registration of credits. There are two distinct types of emissions trading programs for forest offset projects: the regulatory market (where offsets are purchased within a cap-and-trade market to satisfy the capped emissions of a regulated entity), and the voluntary market (which involve over-the-counter transactions between a buyer and a seller to attain the buyer's organization's internal CO₂ reduction policy objective).

In regulatory cap-and-trade markets, carbon offsets bring forests and other “uncapped” entities into the fight against climate change as capped (e.g., CO₂-emitting) entities seek offsets for their emissions liabilities (Climate Action Reserve 2017). Within these regulated carbon markets, buyers are motivated by the need to comply with their

entity's regulated emission reduction targets in a cost-effective manner. The largest regulated forest carbon offset emission trading market globally has been established by the State of California, which began trading in January 2013. As the governing body of California's cap-and-trade program, the California Air Resources Board allows the use of offsets to help contain the cost of complying for capped entities. An analysis concluded that without offsets, allowance prices would potentially be 38 percent higher by 2030 (The Climate Trust 2017). Since the establishment of California's cap-and-trade program, forest offset credits for regulated offset projects have dwarfed credits of voluntary offset projects in the US because of the increased offset prices created through regulatory demand (Unpublished data).

Voluntary carbon markets, where transactions are conducted over-the-counter between a buyer and seller, can provide a low-cost alternative for organizations that want to voluntarily achieve carbon emission reduction. Reputation/brand image, employee engagement, and market differentiation were ranked as the three primary motivations for offsetting by buyers (International Carbon Reduction and Offset Alliance 2014). Voluntary offset revenues can provide financial resources for carbon projects that support a range of additional noncarbon socioeconomic and environmental benefits. Offset buyers commonly look for these "co-benefits" as well as projects that provide other benefits that help vulnerable communities, engage their customers or employees in their programs in order to reap reputational benefits, and are interested in the location where the offset projects are situated (Forest Trends 2016).

In ensuring that emissions reductions are *real*, there are two types of leakage that are normally considered in both voluntary and regulatory offset protocols; 1) activity-shifting leakage means increased GHG emissions or decreased GHG removals that result from the displacement of activities or resources from inside the offset project's boundary to locations outside the offset project's boundary as a result of the project activity, and 2) market-shifting leakage means increased GHG emissions or decreased GHG removals outside an offset project's boundary due to the effects of an offset project on an established market for goods and services. When these issues are considered, forest carbon offsets offer real benefits (Anderson et al. 2017).

²There are two types of leakage that are normally included; 1) activity-shifting leakage means increased GHG emissions or decreased GHG removals that result from the displacement of activities or resources from inside the offset project's boundary to locations outside the offset project's boundary as a result of the project activity, and 2) market-shifting leakage means increased GHG emissions or decreased GHG removals outside an offset project's boundary due to the effects of an offset project on an established market for goods and services.

³ Carbon stored in in-use harvested wood products calculations depend upon the proportion of harvested wood that is manufactured into various classes of wood products, typically including lumber, plywood, other structural and nonstructural panels, and paper, over 100 years.

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