

Abstract

TENNESSEE FOREST CARBON

by

Leslee T, Alexander

August 2013

In 2012, the California Air Resource Board initiated the first Cap-and-Trade (Cap) compliance market in the United States. It is a rigorous and iterative program that was launched under extreme scrutiny, with protocols that command high performance. So far, the Cap appears to be promoting new opportunities for greenhouse gas reductions and improving land conservation. Forest carbon is one of the four approved protocols under the Cap and projects can be developed throughout the United States. There is a projected shortfall in forest carbon offsets available to satisfy the growing demand. This could be a new incentive for land conservation throughout forested areas of the United States. The Southeastern United States contains a large amount of forested land in the hands of non-industrial private landowners, and appears to be a prime target for new forest carbon projects under the protocol. The region is also under immense development pressure, even though more agricultural land is turning back into forests than being developed. But ecosystem services are not well-understood throughout the United States, and resource conservation services in general are under-utilized in Tennessee. So the situation begged whether or not the forest carbon market could incentivize land conservation by non-industrial private landowners in Tennessee. A policy analysis was conducted to compare four alternatives that are in practice elsewhere in the United States with six separate criteria developed from the extensive research of existing literature. The Cap came out on top due to its rigorous protocols, current success, and strict oversight. The compliance regime also assured a new level of assurance for the price of the carbon offsets. Project developers certainly have an opportunity in Tennessee, but the real challenge will be in identifying and developing relationships with willing landowners.

Approved

Dr. Deborah Rigling Gallagher

Date

Master's Project submitted in partial fulfillment of the requirements for the Master of Environmental Management degree in the Nicholas School of the Environment, Duke University
May 2009