

PROFILE: THE OPPORTUNITY OF CARBON CREDITS FOR LOW-INCOME LANDOWNERS

The Mountain Association for Community Economic Development (MACED)

What is the Idea?

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Since its founding in 1976, the Mountain Association for Community Economic Development (MACED) has helped to create a high quality of life for communities in Kentucky and Central Appalachia. They have done this through small business loans and technical assistance, policy research and advocacy, and development tools that conserve the region's natural resources. Since 1979, MACED has provided investments to value-added wood processing businesses, as well as resources to help landowners and communities improve forest management through sustainable forestry practices. In particular, MACED has sought to increase the accessibility of sustainable forestry to low-to-moderate income forest landowners through education, financial assistance, and new income options, such as carbon credits.

What are Carbon Credits?

Carbon credits are acquired through carbon sequestration, a process through which atmospheric carbon dioxide is absorbed by trees, plants, and crops through photosynthesis and stored (or sequestered) as carbon in biomass (tree trunks, branches, foliage, and roots) and in soils. The carbon stored by trees has a market value because corporations seeking to offset their carbon output can purchase carbon offset credits on an international market. The Chicago Climate Exchange (CCX) is a stock market-type clearinghouse that brings carbon credit buyers and sellers together in a marketplace. The CCX sets the rules for emissions credit programs, ensures compliance of program rules, and regulates the buying and selling of credits.

MACED is the first community economic development non-profit organization in the country approved by the CCX as an Offset Aggregator, which is the administrative representative of multiple offset generating projects (in the case of MACED, individual forest landowners). MACED is responsible for contracting with forest landowners to create a pool of eligible acres to produce offset carbon credits to sell at the CCX, managing a database that stores information about the forestland, and monitoring participating forestland compliance with CCX regulations. In return, MACED

receives 10% of the income generated by forest landowners' offset carbon credits.

MACED's Carbon Credit Program

MACED's carbon credit program requires participating forest landowners to go through three main steps to achieve eligibility: management or stewardship plan development, forest certification, and biomass inventory. MACED helps landowners manage each step through a consulting forester and with loans to pay the expenses associated with the certification and inventory processes, including the cost of the consulting forester. Landowners repay the loans with revenue from the carbon sales.

Management Plan and Certification: Landowners with at least 50 acres to which they have title and which have not been heavily timbered since 1992 can apply to the MACED carbon credit program. The range of acreage currently enrolled is between 68 and 3,000 acres. Landowners must either have or develop a forest management or stewardship plan for the land under consideration. These plans can be created with assistance from the Kentucky Division of Forestry free of charge. The forestland under consideration must be certified as employing standards of good forest management by either by the American Tree Farm, free of charge, or by the Forest Stewardship Council, which is not free of charge but for which MACED can provide a loan.

Biomass Inventory: Once the forestland is certified, the next step is to conduct a biomass inventory of the forest acreage enrolled in the carbon credit program. The inventory data is entered into a growth and yield model that shows how the stands will grow and what portion of the biomass can be carbon sequestered – the baseline. Landowners are required to re-inventory their forest, at their own expense, to establish a new baseline if at any point during their enrollment in the carbon program there is a change in the mass of the stand due to natural circumstances, such as an ice storm, or man-made ones, such as a timber harvest. MACED ensures accountability and consistency through annual site visits to all forestland enrolled in the carbon credit program.

Landowners enrolled in the MACED program by December 31st and that have completed the management plan, certification, and inventory processes will receive

revenue from the annual sale of carbon credits, the first of which took place in August 2008.

The Opportunity for Low-to-Moderate Income Forest Landowners

Forty-seven percent of Kentucky is forested (11.9 million acres) and 89% of Kentucky's forestland is owned by private landowners, many of whom are low-to-moderate income with small plots averaging 26 acres. Although engaging in sustainable forestry could create new economic opportunities through the sustainable wood market, very few of these acres are certified. The lack of certified acres is partially attributable to the fact that the certification process is often unknown by small landowners, and even when known, it can appear inaccessible and removed from everyday realities. In addition, the process is time consuming, expensive, and usually without immediate return for small landowners.

A Stepping Stone to Better (and, Eventually, Sustainable) Forest Management: The abundance of forestry resources in Central Appalachia, the large number of low-to-moderate income forest landowners, and the emerging carbon market converge in an opportunity for MACED to make sustainability strategies, such as forest certification, more accessible to a broader base of people by providing economic incentives for using them. As more low-to-moderate income forest landowners understand and engage in sustainable forestry, sustainably harvested wood has the potential to play an increasingly important role in stimulating economically-depressed communities in Central Appalachia.

For MACED certification and the carbon program are not end goals, but rather part of a longer process that includes a significant amount of education, "... the [carbon credit] program is one step in a long walk of beginning to think about the land as an asset with multiple values."

An Opportunity to Build Sustainable Forestry Infrastructure: Beyond bringing low-to-moderate income forest landowners into conversations about and opportunities related to sustainability, MACED sees certification and carbon credits as an important part of the regional infrastructure for sustainable forestry that MACED and others are trying to promote in Central Appalachia. Other necessary parts of the regional infrastructure include investment capital, education for loggers, shifts in state policies to promote procurement strategies, and development of green wood markets in the region. MACED and its various partner organizations are also critical components of the sustainable forestry infrastructure because they provide landowners with capital, information, and technical assistance. As the carbon credit program gets fully underway, MACED's compensation as an Offset Aggregator will de facto help build and support the organizational infrastructure

for sustainable forestry in Central Appalachia by helping MACED to pay for their work on sustainable forestry.

A Strategy for Responding to Climate Change:

The practices and legacy of under-valuation and over-use of natural assets in Central Appalachia have negatively impacted the region's environment, economic potential, and communities. These practices have also contributed disproportionately to climate change. Due to the scale of coal production, Appalachia emits more carbon per capita than any region in the U.S. MACED is attempting to use its carbon credit program as a means of shifting the region back towards balance by offsetting carbon emissions while helping to strengthen local economies, particularly those in poor communities that have been hardest hit by the negative impacts of extractive industry. "It's not just conservation forestry, but a way for low-to-moderate income people to benefit both economically and ecologically."

What is the Promise for Success?

MACED piloted their carbon credit program in Eastern Kentucky with plans to fully learn and work the "bugs" out of the system before expanding into all of Central Appalachia. Prior to launching the program in June 2007, MACED held three landowner meetings to explain the program and the concept of carbon sequestration. These meetings were the only marketing MACED did for the program, yet in less than a year they had registered 22,000 acres to participate. Landowner receptiveness to the program is most likely related to familiarity with the USDA's Conservation Reserve Program which, like the carbon credit program, relies on using forest and agriculture land to enhance environmental quality. MACED's goal going into their second year of the program is to enroll 50,000 new acres throughout Central Appalachia, which will result in \$500,000 for landowners and \$50,000 for MACED as the Offset Aggregator.

What are Potential Threats to the Program?

The most obvious threat to the carbon credit program is forest damage from events, such as storms, fires, and extensive harvests. While the "market" for carbon is less variable than, for example, the weather, the same cannot be said of institutions facilitating carbon exchange — the field is dynamic and new players are constantly surfacing. As a non-profit aggregator, MACED must learn how to navigate this emergent system, always ensuring that their mission drives them and that they get the best deals for the landowners on whose behalf they are working. In this light, MACED seeks to develop a learning agenda for their carbon credit program that will help them formulate and ask questions, monitor progress, and report findings to the broader fields of community economic development and community-based forestry.