

## A NEW FRONTIER FOR SUSTAINABLE AGRICULTURE **Rainforest Alliance Certification Helps Farmers** Mitigate Climate Change and Adapt to Its Impacts

Agriculture is indisputably a major contributor to climate change. Fourteen percent of all greenhouse gas (GHG) emissions are the result of farming — more than the emissions generated by all of the world's planes, trains and automobiles combined. But the relationship between agriculture and climate change works two ways; even as most farming practices lead to deforestation and increased GHG emissions, the changing global climate is significantly impacting the livelihoods of farmers around the world. Drastic changes in climatic conditions — such as prolonged droughts and severe floods — greater frequency of extreme weather events, altered growing seasons and increases in disease and pest outbreaks are just some of the effects of climate change, and they are expected to become more pronounced over time. Farmers need the tools, training and guidance to help them address these challenges.

The Sustainable Agriculture Network (SAN) is helping farmers to mitigate climate change and adapt to its impacts. Established in 1991, the SAN is a coalition of leading tropical conservation organizations, including the Rainforest Alliance, that developed the SAN Standard for sustainable agriculture and manages Rainforest Alliance certification. Founded on the three pillars of sustainability - environmental protection, social equity and economic viability - the SAN Standard has expanded into agriculture's new frontier: climatefriendly farming.

## **Building on Our Strengths**

Rainforest Alliance Certified<sup>™</sup> farms already do a lot to reduce climate change. They conserve forestlands and other native ecosystems; minimize the use of agrochemicals; conserve water; and reduce on-



farm energy use and waste. These practices often lead to reductions in GHG emissions and increases in levels of carbon stored on-farm.

In collaboration with a broad range of partners - from industry, research institutions, government, academia and nonprofit organizations — the Rainforest Alliance and the rest of the SAN have been working since July 2009 to develop new criteria and practices designed to help farmers take additional steps to mitigate climate change and adapt to its impacts.



Growing coffee and other traditional agroforestry crops under shade increases carbon storage and helps mitigate climate change.

The new climate criteria — which are bundled as a "climate module," a voluntary add-on to the existing SAN Standard - reinforce existing certification criteria and provide additional rigor. Those farmers that achieve compliance with the module will be able to assess the risks posed by climate change to their farms and communities; analyze their practices to quantify and reduce the GHG emissions generated by growing, harvesting and processing activities; and increase the levels of carbon stored on their farms through the restoration of degraded lands, reforestation and improved soil conservation. They'll also be able to adapt more readily to altered growing seasons and other conditions.



The Rainforest Alliance works to conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices and consumer behavior.

The SAN has tailored the module to make the changes accessible both to the more than 60,000 Rainforest Alliance Certified farms currently active in nearly 30 tropical and subtropical countries, and to any new farms that will pursue certification. By ensuring that the climate module is compatible with the SAN Standard, farmers will be better positioned to adopt the new practices and can request simultaneous — and therefore more cost-effective — farm audits.

Climate-friendly practices can also result in reduced operating costs, improving a farmer's bottom line by minimizing energy and water consumption, more efficiently using fertilizers and optimizing shade cover. By conducting basic inventories of emissions reductions on their farms, farmers will generate valuable data, which could help them benefit from the climate services their farms provide.

## A Thorough and Collaborative Process

In developing the criteria, the SAN identified practices that have the greatest impact on climate change mitigation and adaption while also

being accessible for tropical farmers — ensuring that the criteria remain both rigorous and practical to implement. Along with the Fundación Interamericana de Investigación Tropical, the SAN's Guatemalan partner, we tested draft criteria and practices on hundreds of small coffee farms that belong to five Rainforest Alliance Certified cooperatives in the Fraijanes and San Marcos regions of Guatemala.

These farmers understand the importance of adapting to climate change; they've seen its

impacts over the course of many years and are eager to improve their preparations for future climate shifts. According to a member of the Cooperativa 2 de Julio in Guatemala, "We realize that climate change is happening. We are experiencing it each day...Farmers need to organize themselves, get prepared and adapt to [these changes] if we want to guarantee our children's livelihoods."

In addition to field activities throughout Central and South America, the SAN also piloted the criteria on shaded cocoa farms in West Africa, smallholder coffee farms and tea plantations in East Africa and a variety of farm types in Southeast Asia. Extensive research — a key component of the standards-development process — was conducted

The climate criteria and climate-friendly practices can be applied on all Rainforest Alliance Certified farms – from small coffee cooperatives to large tea estates.



Photos: Cafeconsul S.A, R. Juárez of SalvaNATURA, J. Aerts, C. Trewick



In El Salvador, SAN member SalvaNATURA and partners show . farmers how to measure trees, enabling them to estimate the levels of carbon they contain. Monitoring and increasing carbon stored on farms is a kev component of climate-friendly farming.

to incorporate the most up-to-date information on best practices, the measuring and monitoring of GHG emissions, and the capacity of various crops to adapt to changing climate conditions in different environments.

During a 100-day public consultation phase, the SAN invited comments and feedback from experts, including those who were unable to participate in the field activities. Public consultation workshops were held in Central and South America, East and West Africa and Southeast Asia, and the network convened leaders and stakeholders representing agriculture, government, nonprofits, research institutions and the private sector to solicit their expert feedback, in the quest to improve the criteria and practices

even further. "The development of the climate module required cutting-edge scientific findings," says Oliver Bach, Rainforest Alliance standards and policy manager. "The feedback we received has helped us ensure that the module reflects the latest research on agricultural emissions and carbon storage."

## The Path Ahead

Farmers who engage

in climate-friendly farming

practices reduce emissions,

increase levels of carbon

stored on their farms and

improve their ability to adapt

to a changing climate.

As we continue to facilitate the adoption of climate-friendly practices on tropical farms, the Rainforest Alliance's top priorities include farmer capacity building and awareness-raising activities. Though the criteria are practical, the science behind them is often complex, and many farmers have little or no formal training in climate science or GHG management. To address this knowledge gap, we are developing training and guidance tools and aim to hold workshops in various countries throughout Latin America, Africa and Southeast Asia.

In 2011, we will conduct field-based research in East and West Africa, Southeast Asia and Latin America, with the aim of measuring GHG emissions and levels of carbon stored on a broad range of farm types. This data will become a baseline for evaluating future progress and assessing the emissions impacts of farms.

The Rainforest Alliance's on-the-ground activities will be complemented by our efforts to raise awareness of these issues among businesses and consumers, and generate support for the work that farmers are doing to address climate change on their land.



For more information about climate change and sustainable agriculture, please visit www.rainforest-alliance.org

USA · Bolivia · Canada · Costa Rica · Ecuador · Guatemala · Indonesia · Mexico · Nicaragua · Spain · United Kingdom 665 Broadway, Suite 500 · New York, NY 10012-2331 · Tel: 212/677-1900 · Fax: 212/677-2187 www.rainforest-alliance.org