

Peruvian coffee farmer Gerardo Goicochea picks ripe coffee cherries on his Rainforest Alliance Certified farm. photo by David Dudenhoefer

## Protecting Our Planet: Redesigning Land-Use and Business Practices



ince its founding 25 years ago, the Rainforest Alliance has pioneered a comprehensive transformation across the industries that most impact our environment-farming, forestry and tourism-and successfully engaged the support of consumers around the world to protect the forests and ecosystems that are essential to our future. Across six continents, the Rainforest Alliance has protected hundreds of millions of acres of forests and fragile ecosystems from destruction, trained hundreds of thousands of farmers in sustainable agriculture techniques, improved social conditions for millions of people, including workers and their families, and introduced principles of sustainability up and down the supply chain, from growers and producers to consumers. We've achieved this by working side-by-side with scores of stakeholders and other

Our mission has never been more urgent. Global population growth is putting unprecedented strain on our natural resources. Forests essential to biodiversity—and, indeed, to our very survival—are threatened by slash-and-burn agriculture, overharvesting, reckless extraction and illegal logging. Some 32 million acres (13 million hectares) of forestland, roughly equivalent to the size of Nicaragua, are converted to farms and ranches each year, resulting in the loss of

allies, including the members of the Sustainable

Agriculture Network (SAN).

biodiversity, migration routes and longstanding local traditions.

By integrating sustainable land use and social responsibility with an emphasis on long-term gains in production and profit, the Rainforest Alliance has forged a new way forward. This report incorporates dozens of impact studies conducted over the past two-and-a-half decades to demonstrate how the spread of sound land-use practices and the development of sustainable supply chains have begun to slow the tide of destruction and lay the groundwork for a better future.

Among the report's key findings:

- 1. The Rainforest Alliance has catalyzed a transformation across the agriculture and forestry sectors, introducing rigorous sustainability standards to a growing number of farms and forestry operations and establishing protected reserves around the world.
- Since co-founding the Forest Stewardship Council (FSC) in 1993, the Rainforest Alliance has certified more than 181 million acres (73 million hectares) of sustainably managed forests, along with thousands of forest-product manufacturing companies, to the rigorous FSC standard.

Rainforest Alliance **Contents Executive Summary** 

To read this report online: www.rainforest -alliance.org/ impacts. The Rainforest Alliance will update the web version of the report periodically to incorporate new impact

Front cover A red-eyed tree frog peeks around the edge of a leaf. photo by Richard Auf der Springe

Inside cover Forested hillsides roll into the distance from the slopes of a vanilla farm in Madagascar. photo by





than half of the world's remaining tropical forests.

**Executive** 

**Summary** 

South America's giant Amazon Rainforest accounts for more

The Rainforest Alliance has successfully introduced the creation of "landscape mosaics" to farm and forestry operations around the world. To meet the standards of FSC and Rainforest Alliance certification, farm and forest operations must allocate as protected reserves a portion of the land they are seeking to certify, and to date, more than 28 million acres (11.4 million hectares) have been set aside as reserves. In Latin America, Rainforest Alliance Certified coffee and cocoa farms maintain at least 40 percent forest cover over their crops, with an average of 12 native tree species per hectare.

# 2. Rainforest Alliance certification has had positive quantifiable impacts on plant and animal biodiversity, including endangered species.

- Studies show that Rainforest Alliance Certified forestry operations have become refuges for resident and migratory wildlife, including endangered species such as great apes. A 2009 study in Gabon, for example, found that great ape densities are significantly higher in FSC-certified forestry concessions, where certified forestry operations applied 86 percent of best practices on average. In non-certified concessions, companies applied only 29 percent of these same practices.
- The Rainforest Alliance's water-protection standards have had positive impacts on waterways and the flora and fauna they support that

extend beyond the boundaries of certified land. In Colombia, a study of streams and waterways demonstrated that Rainforest Alliance Certified coffee farms scored significantly higher than noncertified farms on a stream health index. A 2010 study of tourist lodges in Costa Rica showed that those that adopted our recommended practices both conserved water and avoided contaminating nearby rivers.

### 3. The Rainforest Alliance has achieved measurable gains for workers and their families.

- Labor rights are central to Rainforest Alliance programs, which require fair wages and protect the right to organize and bargain collectively. A 2010 study in Nicaragua, for example, found that the right to free association for the purpose of collective bargaining was protected for 76 percent of workers on Rainforest Alliance Certified farms, in contrast to 38 percent on non-certified farms. Altogether, Rainforest Alliance programs directly impact more than 4.7 million people, representing nearly 1 million workers and their families.
- Rigorous safety standards, protection from pesticides, and access to education and healthcare for workers are critical components of Rainforest Alliance programs. In 2007, the organization tied for the top position in an evaluation by the UK branch of the international Pesticide Action Network that compared protections required

by various agricultural certification schemes. A 2009 study of Brazilian plantation forests by Imaflora, our partner organization in Brazil, found that medical care was available to 100 percent of those seeking care for work-related injuries in certified plantation forests but to only 23 percent of workers in noncertified operations.

# 4. The adoption of Rainforest Alliance protocols by farm, forestry and tourism businesses introduce tangible economic and social benefits to participants and local communities.

- Multiple studies of farm and forestry businesses that work with the Rainforest Alliance have shown that economic performance improved alongside gains in environmental and social performance. Results include higher yields per acre for farmers, increased market access and more optimal use of harvested resources for foresters, and increased visitorship for tourism businesses. In Côte d'Ivoire, for example, a 2011 study of Rainforest Alliance Certified farms and noncertified farms demonstrated that increased productivity on certified farms nearly quadrupled owners' net income to \$161 per acre (\$403/hectare), while noncertified farms earned \$45 per acre (\$113/hectare).
- Rainforest Alliance Verified tourism businesses have had positive ripple effects on local economies. A representative 2010 study of

tourism businesses that participate in our program found that verified businesses increased their local sourcing, spreading profit across micro-, small- and medium-sized enterprises in the communities where they operate.

Rainforest Alliance certification has improved relations between forestry companies and indigenous communities in Canada, where more than 1.23 billion acres (500 million hectares) of boreal forests are home to nearly one million indigenous people. An extensive 2009 study of three large FSC-certified forestry operations in Canada showed that certification strengthened formal consultation between the companies and indigenous communities, helped leverage financial resources for these communities and led to formal agreements between the communities and forestry companies.

Viewed together, the dozens of research studies cited in this report demonstrate the interdependence of environmental, social and economic sustainability. Smart environmental practices ensure long-term gains in productivity, which in turn strengthen the bottom line. Good labor practices, decent wages and access to health care increase workers' engagement in any enterprise and reduce turnover. And increased profits brought about by sound environmental and social protocols bolster incentives for other farm, forestry and tourism operations to integrate sustainability into their way of doing business.

Letter from the President and Board Chair

A fulvous forest skimmer dragonfly perches on a twig in Malaysia. photo by Allan Sander



magine a blisteringly hot summer day, the sun beating down as you walk across a scorched open field—nowhere to hide from the merciless rays. Now picture that same field with a large, old tree at its center, its broad trunk firmly rooted in the Earth, the branches rising up and out to form a canopy big enough to shelter you and three others in its cool shade. Increase the number of trees exponentially until you have a lush, green landscape before you, and compare that scene to a tract of forest that's been slashed and burned to the ground. Which vision is more appealing? Which landscape would better protect all of the living things that inhabit and cross it?

Forests are the consummate multitaskers, harboring up to 90 percent of Earth's terrestrial species, keeping carbon dioxide out of the atmosphere, preventing soil erosion and protecting water supplies. They also play a sheltering role in the day-to-day lives of millions of people around the world, providing them with a source of shade, livelihood, food, medicine, fuel and other resources. And they serve as a touchstone for indigenous communities that have called them home for centuries.

When we founded the Rainforest Alliance in 1987, Amazonian forests were disappearing at a rate of 14,305 acres (5,789 hectares) per day. While many other environmental organizations took a combative approach and organized protests and boycotts, we figured that the most effective way to halt the rampant deforestation was to give forestry, farm and tourism enterprises the economic incentive to manage their lands sustainably. Because it provides both businesses and consumers the ability to "vote with their dollars," certification has become one our most effective conservation tools. Through this approach, we pioneered changes that have helped slow the rate of Amazon rainforest destruction to 4,344 acres (1,758 hectares) per day—still a daunting number, to be sure, yet a third of what it once was.

The Rainforest Alliance has integrated environmental and social sustainability into production and sourcing practices across entire supply chains—from individual farmers, loggers and traders to government agencies and multinational corporations. In the past quarter century, we have transformed the way that forests are managed and

crops are grown, making sustainability the "new normal" around the world. And we've built a powerful, adaptable model that is capable of driving sustainability in virtually any sector.

Agriculture is one of the key drivers of deforestation. Because the pressure to clear forests is growing alongside the food demands of surging populations, the Rainforest Alliance, working closely with other members of the SAN, has placed special emphasis on sustainable agriculture. Today, more than half a million<sup>2</sup> Rainforest Alliance Certified farms are protecting forests while increasing yields and improving conditions for farmers and their workers. Thanks to this work, coffee is more than just one of the world's largest commodities; the crop is now part of a culture that celebrates quality, sustainability and justice for workers. The same is true in other agricultural sectors: 15 percent of the global banana trade, 9.4 percent of the world's tea and 3.3 percent of the global coffee trade originate on Rainforest Alliance Certified farms.

Millions of people around the world also depend on forests for their livelihoods, and cultivating healthy working forests is a vital part of our mission. The Rainforest Alliance, along with other leading environmental organizations and forestry businesses, co-founded the Forest Stewardship Council (FSC). We have certified more than 181 million acres (73 million hectares)<sup>3</sup> of sustainably managed forests, along with thousands of forest product manufacturing companies, to the rigorous FSC standard.

In tourism, the world's largest industry, we helped create The Global Sustainable Tourism Council, a global accreditation body for sustainability certification. We collaborate with governments and entrepreneurs to encourage the conservation of the biodiverse destinations on which these tourism businesses depend.

By engaging a new generation of leaders, we are transforming the business world at all levels. We work with hundreds of major companies, from Staples to Unilever to Marks and Spencer, to help them implement new sourcing and sustainability procedures, thereby driving ever-increasing numbers of sustainable products to market. Sustainability has become much more than just a "best practice"—it is now a business-critical value.

In consumer countries around the world, Rainforest Alliance Certified products are available at mainstream prices, and the demand for them has grown steadily—even during the recent and prolonged economic downturn. The numbers bear out what we've known all along: Given reasonable availability and comparable pricing, consumers give preference to sustainable goods and services. The growth of a globalized economy has been accompanied by the emergence of a new generation of consumers who share our commit-





ment to sustainability. They want to connect with the origins of their purchases, share information and create communities via social media. They are choosing to live as engaged global citizens rather than passive end-users.

This report highlights research that has tracked and assessed the wide-ranging impacts of our work—on ecosystems, biodiversity, livelihoods, businesses, consumers and children. A quarter century ago, the Rainforest Alliance envisioned a world where human beings could earn a better living while restoring degraded land and conserving threatened ecosystems and wildlife. Today, the impact data we have gathered demonstrates that what's good for the planet turns out to be good for people—and vice versa. The evidence is in: Our model points the way to the economy of the next several decades, and a more sustainable future for all.

Tensie Whelan

Tensie Whelan President Daniel R. Katz Board Chair Letter from the President and Board Chair

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New tea leaves reach for the sun on a Rainforest Alliance Certified tea estate in India. photo by Charlie Watson

Bottom

An Ivorian cocoa farmer takes a break from harvesting his crop. photo by Noah Jackson



A flock of

American flamingoes takes flight in Mexico.

photo by David Nuñez

#### Introduction

Previous spread Forested hilltops emerge from the mist in a Borneo cloudforest. photo by Kalyan Varma



#### **Conserving Biodiversity and Ensuring Sustainable Livelihoods**

round the world, more than 7 billion people rely on forests for their most basic needs. Well over 1 billion people carve their livelihoods out of forest landscapes and depend on them for food, medicine, fuel and fiber. And all of us—whether we inhabit forest regions or not depend on these ecosystems for clean water, fertile soil and the stability of our global climate. Healthy forests are critical to the survival of 80 percent of the world's terrestrial species, including humans.4

Because these landscapes are crucial to so many, they are under extraordinary pressure. Global consumption of natural resources increased by more than 40 percent between 1992 and 2005.5 Sixty million indigenous people depend on forests for their subsistence, and a total of 1.6 billion rely on forest resources for their income and survival. Communities that harvest timber and forest goods are no longer doing so to meet only their own needs, but also to supply a global market in forest products that has grown to \$327 billion.<sup>6</sup>

Overharvesting, reckless extraction, burning and illegal logging have resulted in forest loss, the destruction of waterways, erosion and the decimation of wildlife populations. When forests are razed, long-sequestered stores of carbon are released and fewer trees remain to absorb humanproduced atmospheric carbon.

As the global population surges, the pressure on forests only increases. Farmers and ranchers already convert 32 million acres (13 million hectares) of forests to farms and ranches each year,<sup>7</sup> yet global food demand is expected to increase by more than 60 percent by 2050. Most of the agricultural expansion to meet such demand is likely to take place in the tropics, where land and labor are cheaper. Between 1980 and 2000, more than 80 percent of new farmland in the tropics resulted from the clearing of forests.8 The consequences to biodiversity in these previously undeveloped ecosystems are catastrophic: elephants, birds and jaguars lose their migration routes, orangutans and scarlet macaws lose their forage and topsoil runs off and into rivers, killing aquatic life hundreds of miles downstream and eventually silting precious coral reef habitat.

Biodiversity loss impacts many different industries, including tourism. In developing countries, particularly those known for their spectacular wildlife, tourism can account for up to 40 percent of the gross domestic product,9 and 8 percent of all major hotel chain properties<sup>10</sup> and 70 percent of cruiseship destinations are in biodiversity hotspots.<sup>11</sup> But irresponsible tourism degrades and destroys pristine, species-rich environments through poor infrastructure development, excessive water use, and pollution and carelessness on the part of visitors, and road development can attract poachers. If we do not manage the tourism industry sustainably, those seeking to experience nature's wonders will put increasing strain on a rapidly dwindling number of pristine environments.

It's a vicious cycle. When forest loss leads to economic desperation, the pressure on struggling communities intensifies, driving people to deplete their forest resources and develop their economies in unsustainable ways. But the Rainforest Alliance demonstrates that it is also possible to convert this process into a virtuous circle through sustainable management, which protects both forests and those who depend on them for their livelihoods.

Global commerce does not have to lead to catastrophe. We can fight the cycle of destruction.

#### **Real Solutions**

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

es and consumer behavior. In practical terms, this means that we collaborate with business leaders, community representatives, nonprofit advocates, scientists, partner organizations, technical experts and government officials to design and implement sustainability standards for the agriculture, forestry and tourism industries. To ensure that our efforts have staying power, we educate consumers, teachers and students about the impacts of their everyday choices and the simple steps that they can take as individuals to contribute to positive changes on a global scale.

In conjunction with a global network of partners, we independently evaluate companies and community enterprises against rigorous environmental, social and economic guidelines; those businesses that meet our standards may market and sell their products and services with the Rainforest Alliance Certified or Rainforest Alliance Verified trustmarks. These seals give consumers a way to support and reward sustainability through their purchases and the confidence that the products and/or services they are buying were produced responsibly.

To help sustainable farms, forests and tourism businesses succeed, we work along the entire supply chain. Beyond training producers and ensuring that they adhere to our standards, we also link supply with demand and vice versa, forging vital

#### A History of Leadership

In 1989, the Rainforest Alliance developed the world's first forestry certification program—the first such program to rely on market forces to conserve forests. Four years later we helped found the Forest Stewardship Council (FSC), the most respected international standard-setter for forestry certification. The FSC manages the principles and criteria of the global FSC standard, and the Rainforest Alliance works with partner organizations around the world to develop regional standards for responsible forestry. Rainforest Alliance auditors visit forestry operations to evaluate and monitor their performance, awarding the FSC and Rainforest Alliance Certified trustmarks to those operations that meet our strict environmental, social and economic criteria. To date, we are the world's largest FSC certifier by area—nearly half of all FSC-certified land worldwide has been certified by the Rainforest Alliance. 12 We are also the leading certifier of community and indigenous operations.

Recognizing that agriculture also has a profound influence on deforestation, the Rainforest Alliance began to develop sustainable agriculture standards in 1990 for banana farming in Central America. These efforts led to the formation of the Sustainable Agriculture Network (SAN), a coalition of leading conservation organizations that except for the Rainforest Alliance—were all based in Latin America. Today, the SAN is global, and the network both manages the Rainforest Alliance Certified standard for agriculture and audits farms around the world to ensure compliance. The SAN's local member organizations and staff and certification bodies endorsed by the SAN deploy experts and auditors in farming regions worldwide. The range of crops cultivated under SAN standards bananas, citrus, coffee, cocoa, flowers, fruit, sugarcane, tea and others—is expanding rapidly, while the SAN continues to strengthen the standard for sustainable agriculture.

In tourism, the Rainforest Alliance works with hotels, tour operators and other travel businesses, providing training and technical assistance to help them integrate environmentally, socially and economically sustainable practices into daily operations. We award the Rainforest Alliance Verified trustmark to companies that meet our criteria by achieving significant and measurable sustainability milestones. In 2009, we helped establish the Global Sustainable Tourism Council (GSTC), the

#### **How the Three-Pronged Approach Works**

### **Environmental &** Social Impacts improve land management and conditions for workers Expanded Economic Sustainability Efforts Improvements producers encouraged higher profits, improved public to invest further in best practices image

first international accreditation body for sustainable tourism certification. Our Rainforest Alliance Verified criteria comply with the GSTC's Global Sustainable Tourism Criteria, and we encourage businesses to apply for to GSTC-accredited certification programs.

#### The Triple Bottom Line

From our earliest days, we've understood that to be effective, sustainability standards must maximize the triple bottom line of environmental conservation, social justice and economic viability. Environmental harm undermines the natural resources upon which millions of businesses and billions of livelihoods depend. No company can succeed over the long term without respecting and upholding the rights of workers and communities. And economic success is essential to sustain improvements brought about by environmental and social responsibility.

But our three-pronged approach is about more than simply preventing collapse. Our successes tell the story. Businesses that implement environmentally sustainable practices are often more efficient and more effectively run across the board, a byproduct of the hands-on attention they give to managing their daily operations. By caring for their natural resources—the health of their trees, the fertility of their soil and the survival of the natural and cultural attractions that surround them—they ensure their economic longevity and earn the loyalty of their customers. Those companies that have healthy, happy workers have lower rates of staff turnover and are often more productive than their competitors. And a business that earns a premium for its products and protects its economic bottom line has compelling reasons to maintain—and even deepen—its commitment to sustainability.

#### **Without Rainforest Alliance Certification**



#### With Rainforest Alliance Certification



### Left

Garbage lines the rows of a coffee farm with no waste manage ment policies. photo by Gilda Aburto

Recycling and garbage containers keep a Peruvian coffee farm clean



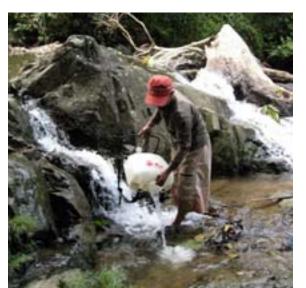




#### Left

Sun farms strip away native vegetation, resulting in decreased productivity

Natural shade cover leads to higher-quality coffee, greater biodiversity, and increased resistance to pests and disease. photo courtesy of Cafeconsul S.A.





### Left

Washing farm equipment in streams can contaminate the entire waterway

A farmer in protective gear washes equipment over a soak pit, which uses layers of sand and charcoal to filter wastewater.

'90 '92 '94 '96 '98 '00 '02 '04 '06 '08 '10 '12

### **Global Impact: The Rainforest Alliance at 25 Years** countries where Rainforest Alliance is active locations of Rainforest Alliance offices Certified Cocoa Production, Certified Tea Production, Area of Certified Forestry Operations, in Acres Area of Certified Farms, in Acres Certified Coffee Production, in Tons in Tons in Tons 200,000,000 4,000,000 250,000 100,000 500,000 175,000,000 3,500,000 200,000 80,000 400,000 150,000 60,000 300,000 150,000,000 3,000,000 100,000 40,000 200,000 125,000,000 2,500,000 50,000 100,000 100,000,000 2,000,000 '03 '04 '05 '06 '07 '08 '09 '10 '11 '04 '05 '06 '07 '08 '09 '10 '11 '04 '05 '06 '07 '08 '09 '10 '11 75,000,000 1,500,000 50,000,000 1,000,000 4.7 million people directly impacted101 countries and territories \$48 million budget313 total staff 25,000,000 500,000 • > **184 million** acres of certified land • 20 offices on 5 continents

'94 '96 '98 '00 '02 '04 '06 '08 '10 '12



### A Comprehensive Approach to Environmental Conservation

here are plenty of grim statistics on the state of the global environment. Each year, the planet loses approximately 35.8 million acres (14.5 million hectares) of forest. Deforestation and forest degradation are responsible for more than 17 percent of greenhouse gas emissions, and the clearing of tropical rainforests results in an estimated loss of 100 species per day. According to the International Union for the Conservation of Nature (IUCN), species extinctions are occurring at 1,000 times or more the natural rate—the greatest extinction crisis since dinosaurs disappeared from Earth 65 million years ago.

Deforestation has direct and immediate consequences for all of us. Approximately 40 percent of the global economy is based on biological products and processes<sup>16</sup>—especially farming and logging. Moreover, extreme weather becomes more damaging when there are no trees to buffer, for example, the heavy downpours and high winds that accompany hurricanes or other extreme weather events. And species disappear more rapidly when they drink water that's been contaminated by runoff from chemical-intensive farming.

Yet there are still reasons for hope. According to the FSC, 44.5 million acres (18 million hectares) of tropical/subtropical forest, 143 million acres (58 million hectares) of temperate forest and 200 million acres (81 million hectares) of boreal forest are now under sustainable management. And the IUCN estimates that 3.7 billion acres (1.5 billion hectares) of lost or degraded forestlands worldwide could potentially be restored.<sup>17</sup>

High global demand for forest and agricultural products we purchase and use every day—such as paper, wood, fruit, coffee and tea—offer the pro-

ducers of these goods powerful incentives to protect the Earth's natural resources. Their sustainable production, independently confirmed through Rainforest Alliance certification, aligns global conservation practices with global market forces.

#### Creating a Landscape Mosaic: Our Standards<sup>18</sup>

Because so many farming, logging and tourism activities take place in regions with high levels of biodiversity and species endemism, economic activity puts fragile ecosystems at great risk. Slash-and-burn agriculture, irresponsible timber harvesting and uncontrolled tourism development degrade and fragment forested lands. These harmful practices also isolate the breeding populations of animal and plant species, which harms their capacity for adaptation. Fences obstruct wildlife migration routes, while food sources shrivel up or become risky for animals to access.

One way to help maintain the connectivity of vital wildlife habitat, prevent erosion and protect waterways is to set aside portions of land for protection. Governments and private entities around the world have been working together to establish these protected areas as a means of safeguarding what remains of our intact forests. This approach can be especially effective in intensively farmed regions, where natural habitat is often absent or fragmented. Protected forest areas have been shown to significantly increase the biodiversity of plants, birds and insects. <sup>20</sup>

Yet the mere creation of forests reserves is not enough; illegal loggers and poachers continue to threaten even protected areas that are poorly guarded or underfunded. And even the best-run reserve is merely an island if it lacks a forested bridge, such as a buffer zone or sustainably managed production land, to link it to other protected areas.



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An oriental pied hornbill takes

stock of its sur-

photo by

Allan Sander

roundings in the Malaysian jungle.



In a world of dwindling resources, a comprehensive approach to conservation must grant communities the right to extract forest resources sustainably. This approach is at the heart of the Rainforest Alliance's work. Sustainably managed farms, forests and tourism businesses can be an integral part of a productive landscape—like pieces of a puzzle that fit together to form a coherent whole. Individually, certified businesses can help prevent erosion, protect waterways and soils and reduce the risk of fires, poaching and other activities that have the potential to cause great destruction to neighboring nature reserves. Collectively, these businesses and protected areas can form a healthy mosaic of interconnected functions that sustains both the landscape and the livelihoods of its people.

Although there are differences among the criteria for each of our programs, we require that farms, forests and tourism businesses—particularly those located in high-value ecosystems—manage their enterprises with an eye toward their role in a landscape mosaic. Here are a few of the ways that our standards support the health and conservation of existing high-value ecosystems:

**Agriculture:** To prevent the clearing of forestland for further agricultural expansion, Rainforest Alliance Certified farms may not have burned or cleared forest or other ecosystems of high value since 2005, and they must create conservation

areas or plant new trees to compensate for any forests cleared or ecosystems damaged between 1999 and 2005. Under SAN standards (see p. 10), agricultural production must be limited to areas where soil can adequately support long-term cultivation. Land that is unsuitable for agriculture must be restored to its natural state, and farms must implement a plan to maintain or restore the connectivity of natural ecosystems within their boundaries. For example, forest fragments must be connected by new tree plantings so that wildlife species can pass easily through a farm's landscape. Farm production areas must not be located in areas where they could compromise national parks, wildlife refuges, biological corridors, forestry reserves, buffer zones or other public or private conservation areas.

Forestry: Old-growth forests, referred to in some regions as ancient forests, merit special protection under our standards. These forests are designated as High Conservation Value Forests, and forest managers must maintain the area, structure, composition and natural processes of these special forest areas, protecting and buffering them as necessary with conservation zones. Businesses must protect or enhance existing species diversity within ecosystems and allow all harvested areas to properly regenerate. To maintain local genetic diversity, forest managers must document the ecosystems that would naturally exist on their land and assess the adequacy of their representation

Klabin's FSCcertified plantation forests are grown amid native woodlands in Brazil. photo by Zig Koch

### Brazil: Big Company, Big Impacts

The largest producer and exporter of paper in Brazil, Klabin S.A., proves that sustainable forestry can succeed on a commercial scale while still conserving vital natural resources. With 524,000 acres (212,000 hectares) of plantation forests and an additional 474,000 acres (192,000 hectares) of preserved native woodlands, the company's positive impact has been considerable, and its commitment to socially, environmentally and economically sound practices runs deep.

Klabin first received Forest Stewardship Council (FSC) certification from the Rainforest Alliance in 1998. It was the first pulp and paper company in the Americas to earn FSC certification for responsible forest management and the first in the world to be FSC-certified for



the management and harvesting of medicinal and cosmetic plants.

Within South America's fragile Atlantic Forest, Klabin has created a landscape mosaic that blends production land and native woodland reserves—providing a badly needed haven for 964 species, including giant anteaters, maned wolves and tiger herons. The company continues to play an active role in the conservation of Brazil's vanishing forests and wildlife and serves as a successful model for other businesses interested in investing in sustainability.



and protection in the landscape. They must also implement buffer-management guidelines that protect and restore water quality.

Tourism: Natural marine and land areas must be protected because of their biodiversity and their cultural, scientific and environmental value. Tourism businesses must actively work to conserve and/or maintain surrounding natural areas, whether they are state-owned or private, and promote the responsible visitation of these areas. Businesses must comply with all applicable regulations in the natural areas in which they operate. When required, tourism businesses must have all the proper permits to carry out tourist activities in natural areas.

#### **Creating a Landscape Mosaic: Our Impacts**

On Rainforest Alliance Certified land, more than 28 million acres (11.4 million hectares) around the world have been set aside as protected reserves. These reserves have improved water quality and contributed to species survival and recovery in some of the world's most biodiverse ecoregions. Forest Stewardship Council/Rainforest Alliance Certified forestry operations are home to more than 54 million acres (22 million hectares) of High Conservation Value Forest (defined by the FSC as forests with high biodiversity values, large intact natural forest areas, rare or threatened ecosystems, forests with critical ecosystem importance,

or forest areas of particular importance to local communities and indigenous peoples). Through their sustainable management, the farms, forestry operations and tourism businesses with which we work function as vital components of healthy forest landscapes.

## Brazil: Certified Plantation Forests Establish Twice as Many Forest Reserves

In South America, the Atlantic Forest once stretched from the coast of eastern Brazil all the way to Argentina. Today, after a century of extraction and encroachment, only 7 percent of this tropical rainforest remains. Yet these areas still retain high levels of biodiversity and endemism; 52 percent of the Atlantic Forest's tree species and 92 percent of its amphibians are found nowhere else on Earth. With less than 2 percent of this forest under official protection, it is critically important to protect remaining forest fragments and nurture their health via the sustainable management of land that surrounds and links them.

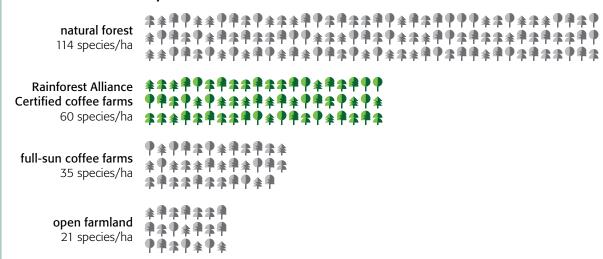
Plantation forests are one way of helping Brazil meet the world's demand for timber and paper products without destroying what remains of its Atlantic Forest. Though plantation forests make up less than 1 percent of Brazil's forested area, they produce 60 percent of the country's industrial roundwood.<sup>24</sup> Rainforest Alliance Certified plantations are required to create wildlife corridors and

Environmental Impacts

The giant anteater is one of hundreds of species found on sustainably-managed forestland in Brazil. photo by Danny Barron

Environmental Impacts

#### El Salvador: Tree Diversity on Rainforest Alliance Certified Coffee Farms



Migratory songbirds, like this yellow-rumped warbler find shelter each year in Central America's shade-grown coffee farms. photo by Allan Sander

protect streams, and they must take natural forest patterns into consideration when planting trees.

A 2009 study of plantation forests located in the eastern Brazilian states of Rio Grande do Sul and Santa Catarina found that 100 percent of FSC/Rainforest Alliance Certified operations had established or were in the process of establishing legal reserves, compared to 57 percent of noncertified operations. <sup>25</sup> Certified operations planted native species at a 40 percent higher rate than noncertified operations, providing greater resistance to pests and decay and mimicking the natural diversity that would be found in the landscape—to the benefit of area wildlife.

#### El Salvador: Shaded Coffee Farms Link Forest Fragments

Originally domesticated from wild ancestors that grew in the shadow of rainforests, modern coffee and cocoa cultivars still do best under shade cover. Shade-grown coffee farming generally produces more stable yields, reductions in fertilizer and water use, higher-quality beans and improvements in soil quality. It also helps maintain vital ecosystem services—such as natural water filtration, soil conservation and thriving populations of the beneficial insects, birds and amphibians that control pests. Maintaining these natural functions helps farms to adapt to the negative effects of climate change, including prolonged droughts and flooding, altered growing seasons and more frequent pest and disease outbreaks.

On steep terrain, coffee and cocoa agroforestry systems have been as effective as native forests in preventing erosion and reducing surface runoff.<sup>27</sup> Shade trees help protect stream ecosystems by reducing leakage of agrochemicals into underground water sources,<sup>28</sup> and in many tropical countries, where forests have become highly fragmented due to agricultural expansion, shaded coffee and cocoa farms offer essential connectivity to the forest landscape—providing vital habitats for



migratory songbirds, monkeys and a host of other species.<sup>29</sup> Shade-grown coffee has been shown to support more biodiversity than other agricultural land uses.<sup>30</sup>

The SAN criteria for Rainforest Alliance certification require that coffee and cocoa farms maintain at least 40 percent forest cover over their crops, with an average of 12 native tree species per hectare. That's good news for migrating birds—who gain a place to roost and find food—as well as for farmers, who can earn a premium for the more flavorful coffee beans and cocoa pods that grow under shade cover.

El Salvador, where we work with SAN member SalvaNatura, provides a good example of the tangible impacts of the shade requirement. The country has only 14,800 acres (6,000 hectares) of primary forest remaining, contained within two national parks. Yet although this forestland represents only 0.3 percent of El Salvador's total land area, its shaded coffee farms boost the country's total forest cover significantly, to 14 percent of its land area.

More than 500 Salvadorean coffee farms are Rainforest Alliance Certified, providing an essen-

tial complement to the country's fractured forests. While natural forest can have anywhere up to 46 tree species per acre (114 per ha), studies show that Rainforest Alliance Certified coffee farms harbor 24 tree species per acre (60 per ha), compared to only 14 species per acre (35 per ha) on full-sun coffee farms and 8 species per acre (21 per ha) on open farmland.

Migratory birds also prefer certified farms to non-certified.<sup>31</sup> El Salvador's 146,000-acre (59,000-hectare) Apaneca Biological Corridor, for example, is a patchwork of forest fragments of high ecological significance connected by shade-grown coffee farms. These connectors safeguard migration routes for wildlife, including the country's more than 500 bird species.

### Colombia: Shaded Coffee Farms Improve Soil Health

Colombia is the second most biodiverse country in the world and is home to 10 percent of the world's species. It is also home to 563,000 coffee-growing families—96 percent of which work small farms of less than 12 acres (5 hectares).

Thanks to our close collaboration with SAN member Fundación Natura, we are pleased to report that about 5,000 of these farms are Rainforest Alliance Certified, covering 125,000 acres (51,000 hectares). Increased forest cover on these small farms has a significant aggregate effect on the country's environment, even down to its smallest inhabitants. Arthropod species—such as spiders, mites and ticks—that occur naturally in soils are sensitive to the texture, structure and fertility of soil, and their presence is an indicator of soil health. Rainforest Alliance Certified coffee farms were found to have consistently higher richness and diversity of soil arthropods than noncertified farms.<sup>32</sup>

### Brazil: Coffee Farm Designates Half of its Area as a Protected Reserve

Not all farms can be shaded—some are located in grasslands where trees are not native, and other crops require full sun to grow. In these cases, certification requires that farms dedicate at least 30 percent of their land for conservation or recovery of an area's natural ecosystems. Ideally, this step ensures that migratory species can travel safely through agricultural zones.

For example, Brazil's cerrado region—a biodiversity-rich grassland ecosystem that covers one-fifth of the country—is ideal for agriculture. It is also a biodiversity hotspot that boasts an astonishing array of wildlife, including many species found nowhere else on Earth. But only 1.5 percent of the cerrado is protected, which means that its survival depends on private conservation efforts like those taking place on Rainforest Alliance Certified farms.



#### Nicaragua: A Haven for Birds

Dating back to the Jurassic period, the giant oak and fern trees on Georges Duriaux and Lili Chavarría's 260-acre (120-hectare) property in northern Nicaragua have sheltered rare and declining bird species, such as the three-wattled bell-bird and the golden-winged warbler, a migratory songbird that spends northern winter months in Central and South America.

The couple bought the land from Lili Chavarría's brother 18 years ago with the intention of protecting its rich biodiversity. Today the El Jaguar Private Wildlife Reserve and Organic Farm produces coffee, hosts tourists and serves as an international center for wildlife research.

"We realized that in order to conserve our land, we needed to earn income from it," explains Duriaux. "I had experience with organic coffee production, so we decided to start an organic farm at El Jaguar. My wife is fascinated by ornithology and has always been a nature lover. So everything fell into place—we grew coffee and were lucky to have a lot of birds on the reserve."

The farm, which was designated an "important bird area" by BirdLife International, provides habitat for 285 bird species, including 7 endangered species, 3 endemic species and 17 species with reduced populations. It is also listed on the Rainforest Alliance's SustainableTrip.org website (see page 55), which encourages consumers to choose sustainable tourism businesses when they travel.

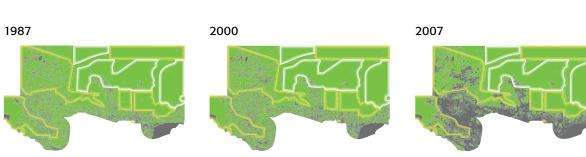
**Environmental Impacts** 

The three-wattled bellbird has one of the loudest calls of any bird, audible to humans from more than half a mile away. photo by Ryan Kozie

**Environmental Impacts** 

#### Deforestation in El Petén, Guatemala





Daterra, a 14,800-acre (6,000-hectare) Rainforest Alliance Certified farm in southeastern Brazil, grows coffee under full sun in tight rows. More than one third of the property—6,170 acres (2,500 hectares)—consists of protected natural areas. Within these set-asides, biologists have found rare macaws, owls, jaguar tracks and a giant anteater.

Guatemala: Certified Forestry Concessions Prevent Deforestation and Fires Better than Protected Areas

Not only do Rainforest Alliance Certified businesses help safeguard protected areas, but in some cases, they offer even greater protection to wildlife and plants than official nature reserves. Guatemala's 2 million-hectare (4.9 millionacre) Maya Biosphere Reserve (MBR) is Central America's largest stretch of contiguous tropical forest. Home to more than 300 tree species, many of which are threatened, the MBR is also a haven for the world's shrinking populations of jaguars, howler monkeys and scarlet macaws, and the site

of cultural treasures such as Tikal National Park and other Mayan ruins. Given that four out of five Guatemalans live in poverty, and population growth in the MBR is estimated at 10 percent per year, it's not surprising these high-value ecological and cultural resources are greatly threatened by illegal logging, new settlements and farming.

The MBR itself is a matrix of areas zoned for different uses—core protected areas, multiple-use zones and buffer zones. Within the multiple-use zones there are designated forestry concessions, where local communities are legally allowed to extract timber. The Rainforest Alliance has been working to help these forestry concessions achieve certification and become environmentally sustainable.

One 2008 study demonstrates how our efforts are paying off.<sup>33</sup> Over a five-year period, the report found that the deforestation rate was 20 times higher in core protected areas of the reserve than

The ruins of the Mayan city of Tikal rise from the heart of the Guatemalan rainforest in the Maya Biosphere Reserve. photo by Charlie Watson



in Rainforest Alliance Certified concessions, and the incidence of forest fires was 104 times higher-10.4 percent of land in protected areas burned versus 0.1 percent in certified concessions.<sup>34</sup> These numbers demonstrate the importance of Rainforest Alliance certification in supporting and buffering protected areas; moreover, they show that when communities have an active say in managing their forestlands and the technical knowledge to do so, they can be extremely effective at conserving precious natural resources.

#### FSC/Rainforest Alliance Certified Forestry Operations Help Protect UNESCO World Heritage Sites

UNESCO World Heritage Sites are places of exceptional natural beauty and/or outstanding biodiversity that typically have a national-level designation such as national park or wildlife refuge. A 2011 study examined FSC/Rainforest Alliance Certified forestry operations adjacent to or within 20 kilometers of UNESCO World Heritage Sites, documenting improvements such as the way they assess and protect High Conservation Value Forests (HCVFs).35 Having functional HCVFs near or adjacent to the World Heritage Sites enhances the range of habitats available for wildlife species and provides additional sources of genetic material. For example, an FSC/Rainforest Alliance Certified forestry operation near Tikal National Park in Guatemala was explicitly required to develop wildlife corridors to aid the movement of rare, threatened and endangered species. In other cases, certified operations were required to identify and conserve the habitats of imperiled flora and fauna.

In addition to protecting HCVFs, these certified forestry businesses were tasked with helping to buffer the World Heritage Sites from external threats by minimizing the intrusion of invasive species and preventing or containing forest fires by acquiring firefighting equipment and training staff in its use.

#### **Protecting Wildlife: Our Standards**

Around the world, wildlife is threatened by human encroachment into sensitive forest habitats. In the tropics, biodiversity has declined by 30 percent since 1992.36 Agricultural expansion, reckless tourism and illegal logging can spell disaster for great apes, elephants and other large mammals, as well as songbirds, amphibians and reptiles. But the agriculture, forestry and tourism businesses with which the Rainforest Alliance works are helping to ensure that rare and endangered species are protected from habitat destruction, poaching and other serious threats:

Agriculture: As refuges for resident and migratory wildlife, Rainforest Alliance Certified farms must create and maintain an inventory of the wildlife and habitats on their property, and they must protect natural areas that sustain wildlife and



forests in Gabon offer muchneeded habitat for great apes, like this juvenile gorilla.

**Environmental** 

**Impacts** 

FSC-certified

photo by Jérôme Laporte

provide habitats for their reproduction. They must also restore and protect habitat for animals that pass through during migration. Hunting, capturing, extracting and trafficking of wild animals, particularly species that are threatened or endangered, is prohibited.

Forestry: Rainforest Alliance Certified forests must put safeguards in place to protect rare, threatened and endangered species and their habitats (nesting and feeding areas, for example). Such measures include establishing conservation zones and protected areas, as well as enforcing controls on inappropriate hunting, fishing, trapping or collecting activities.

Tourism: Rainforest Alliance verified tourism businesses forbid activities that put threatened and/ or endangered native species at risk. They must guarantee the protection of native plants and animals, preventing, for example, activities that cause excessive light and noise and the feeding of wild animals. Businesses must take measures to prevent the invasion of exotic species (both flora and fauna) and avoid the introduction of species that could inadvertently cause changes in the local ecosystem. In green areas, businesses use native plants.

### **Protecting Wildlife: Our Impacts**

#### Great Apes and Other Mammals Are Better Protected in FSC-Certified Forests

In FSC-certified forests, hunting is restricted, nesting areas are protected and fruit-bearing trees are retained in harvest areas in numbers adequate to support wildlife. As a result of such efforts, a 2009 analysis found that great ape densities were higher in FSC-certified forestry concessions and those in the process of getting certified than in other forestry concessions.37

#### Environmental Impacts

Top
Fallen logs and
other dead wood
play an important
role in the forest
ecosystem.
photo by
Mike Field

Bottom
Orangutans
like this one
have thrived
in Malaysia's
Deramakot Forest
Reserve, in part
because of the
requirement that
dead logs and
ground cover be

maintained.

Paul Hillman

photo by

Right
Rainforest Alliance
foresters ensure
that forestry
operations meet
the criteria for
certification.
photo by David
Dudenhoefer







Gabon is a case in point. Located in the moist tropical forests of the Congo Basin, Gabon is home to lowland gorillas, chimpanzees and elephants. Although 11 percent of the country's total area is protected, roughly 60 percent of its land mass is subject to logging. Active logging concessions surround almost all of Gabon's protected areas, many of which are critical for primate conservation. Unguarded roads provide hunters with easy access to primate habitat.

Gabon's FSC-certified forests offer protection for these primates, elephants and other wildlife by using environmentally sensitive logging techniques, monitoring hunting activities and adhering to national and international laws governing the management of endangered species. In a study of the practices of seven timber companies located around Gabon's national parks, researchers found that the two FSC-certified companies performed far better than the five noncertified companies in almost every aspect. On average, certified companies implemented 86 percent of best practices, while noncertified companies implemented 29 percent.

The quality of forest management has also been a key factor in maintaining mammal populations in Cameroon, where mammal density on FSC-certified concessions (or those that are in the process of becoming certified) has been shown to be higher than in forestry operations not pursuing certification.<sup>38</sup>

Certification's Dead-Wood Requirements Protect Streams, Soils and Wildlife Populations

A healthy forest habitat includes not only thriving populations of standing trees but also significant quantities of dead and decaying wood. Nearly all types of animals thrive in areas where there is abundant dead wood, a critical source of nutrients for soil health and forest regeneration. Standing dead trees and fallen logs provide habitat for snakes, mammals, lizards and birds, while decaying wood attracts the insects and grubs upon which many other species depend for food. One study in the United Kingdom found that 20 percent of wildlife species that rely on dead wood are rare, vulnerable or endangered.<sup>39</sup>

FSC/Rainforest Alliance criteria require that forests contain appropriate levels of dead wood in areas that have been logged, a practice that not only conserves wildlife habitat but also protects streams and stabilizes soil. Researchers studying forest structure on three FSC-certified logged stands (a forestry unit of trees that are relatively uniform in species, age and condition) in the US state of Vermont found that certified stands contained significantly higher volumes of standing and downed dead wood than non-certified stands.<sup>40</sup>

On the Malaysian island of Borneo, the Deramakot Forest Reserve was the first natural tropical rainforest in Southeast Asia to become FSC-certified, in 1997. At 136,000 acres (55,000 hectares), it is

home to an estimated 900 orangutans, as well as four other globally threatened large mammals: the pygmy elephant, proboscis monkey, clouded leopard and tembadau, a species of wild cattle. A study of biodiversity and carbon in Deramakot revealed that the populations of mammals and flying insects in certified concessions were similar to those in protected areas because of the certification requirement that dead trunks, fruit-bearing trees, large trees and ground cover be maintained for wildlife habitat and forage. The certified concessions had even greater numbers of some large mammals than surrounding protected areas because of the requirement that road access be guarded, hindering poachers.

### Kenya: Certified Tea Estate Provides Habitat for Forest-Dependent Bird and Monkey Species

Unilever Kenya's Kericho Tea Estate is a Rainforest Alliance Certified tea farm covering 32,000 acres (13,000 hectares). Since 2000, Kericho has planted and distributed three-quarters of a million native trees on its land and worked to protect and restore its wetland areas. As a result, 10 percent of what was formerly a tea monoculture now serves as wildlife habitat featuring small forest patches, wetlands, protected riparian forests and windbreaks of native and exotic trees.<sup>42</sup>

Rainforest Alliance Certified farms are required to inventory all wildlife living or migrating through their lands. Birds are valuable indicator species of ecosystem health, and Unilever partnered with the National Museum of Kenya to measure the richness and diversity of bird species on the Kericho property. The study revealed a total of 174 bird species on the estate—compared to 121–132 species recorded in earlier studies of the adjacent Maasai Mau Forest. An estimated 220 species visit the Kericho grounds throughout the year, including the near-threatened pallid harrier and semi-collared flycatcher, as well as the endemic Hartlaub's tuaco and Hunter's cisticola. Twenty-four migratory bird species were also identified.

The study determined that 40 percent of the bird species on the farm were forest dependent, highlighting the importance of tree cover and riparian forest conservation in providing forage and nesting roosts for species that might not otherwise survive in this habitat. The estate's forest regeneration activities were also found to augment the habitats of the Maasai Mau Forest, which is home to elephants and leopards and serves as an important watershed for the entire country.<sup>43</sup>

Unilever has committed to planting two trees per employee each year on its Kericho property (about



A vervet monkey at the Unilever Monkey Sanctuary on the Kericho Tea Estate in Kenya. photo by Caroline Irby

30,000 trees annually—additional forest cover that has increased the populations of colobus, vervet and red-tailed monkeys in the farm's riverbank woodlands). Beyond the Kericho estate, the company is working with thousands of independent supplier tea farmers in Kenya to help them become Rainforest Alliance Certified. As part of this process, Unilever helps farmers develop their own sustainable fuel sources to decrease reliance on fuelwood harvested from the Maasai Mau Forest.

#### Brazil: People and Wildlife Thrive in **Certified Forests**

Located in the heart of the Amazon, the Brazilian state of Acre is 88 percent forested and home to many rare animals, including jaguars, pink river dolphins and harpy eagles. 44 Wood and wood products make up nearly 90 percent of the state's exports. The extraction of wood, fruit, nuts, fish and game from the Amazon forest provide food and income for nearly 300,000 inhabitants of the state, but in the decade leading up to 2005, extractive activity resulted in a loss of more than 148,000 acres (60,000 hectares) of forest per year in Acre and threatened the habitats of endangered species.45

FSC/Rainforest Alliance certification has demonstrated that in Acre, humans and wildlife need not be on a collision course. According to a study conducted by Imaflora, our partner group in Brazil, 87 percent of community members on certified forestry operations in Acre now take steps to protect wildlife, such as refusing to kill animals with offspring and preserving trees that provide food to these animals, compared to only 44 percent of community members in noncertified forests.<sup>46</sup> Eighty-eight percent of people living on certified lands say they regularly report poaching, illegal logging, burning and other environmental crimes to authorities, compared to 55 percent of people living on noncertified lands. Not only does certification require the conservation of ecologically sensitive areas, provision of wildlife corridors and protection of waterways—in Acre it has cultivated

a culture of conservation and respect for the

to tourism businesses that want to attract birdwatchers, hikers and other tourists who seek out lush, thriving ecosystems as their destinations of choice. Rainforest Alliance Verified hotels and lodges understand that their ecosystems are their most valuable asset, and they prohibit any activity that threatens native plants and animals. A survey of 14 verified tourism enterprises in five countries found that all of these businesses believed that the conservation was critical to improving the quality of their guests' experience.<sup>47</sup>

The Tambopata Research Center in the Peruvian Amazon, a Rainforest Alliance Verified tourism enterprise deep in the Peruvian Amazon, provides the quintessential sustainable tourism experience. Its 18-bedroom lodge, nestled in an uninhabited area of the Tambopata National Reserve, was built from traditional materials such as wood, palm fronds and clay, and its electricity comes from a generator that is turned on once a day to recharge batteries for lodge facilities.

Not surprisingly, this Rainforest Alliance Verified harboring monkeys, capybara, tapirs, caiman and wildlife from the lodge. The center has also served



Tourists look for birds in the canopy during a guided walk through the Costa Rican rainforest. photo by Jessica Webb

#### Wildlife Protection in Acre, Brazil

community members living on certified lands community members living on noncertified lands



take steps to protect wildlife



regularly report environmental crimes to authorities

region's spectacular wildlife.

#### Peruvian Amazon: Protecting an Area Rich in Biodiversity

Healthy plant and animal populations are vital

property is rich in extraordinary biodiversity, a variety of macaws. Bedrooms open onto the surrounding rainforest, allowing guests to view





**Environmental Impacts** 

A swift-moving stream flows through a tropical forest in Australia. photo by Jeffrey Allenby

as the home base for scientists who are working to conserve macaw populations.

#### **Protecting Waterways: Our Standards**

When logging roads are built and trees are felled, soils can erode into nearby waterways, especially in hilly terrain. Buffer zones—where vegetation is left to grow in its natural state—can arrest the erosion and sedimentation that causes nutrient buildup and pollution in rivers, streams and other bodies of water.<sup>48</sup> In the same way, buffer zones also reduce agrochemical runoff that can contaminate waterways. 49 By protecting water quality and providing shade for temperature control, streamside buffers help conserve aquatic biodiversity<sup>50</sup> and function as wildlife corridors for terrestrial and bird species.<sup>51</sup>

Our standards ensure that clean, healthy bodies of water can coexist with economically viable working landscapes. In addition to buffer zones, our criteria require certified farms and forests and verified tourism operations to practice effective wastewater treatment, water conservation and other safeguards, including the following:

**Agriculture:** Rainforest Alliance Certified farms protect aquatic ecosystems from erosion, agrochemical drift and runoff by establishing protected zones around rivers and other natural water bodies. Minimum distances between crop plants and



Two streams, one red with sediment and runoff, converge in the hills of Costa Rica. photo by Rob Goodier

aquatic ecosystems must be respected. Farms must not alter natural water channels to create new drainage or irrigation canals. Previously converted water channels must maintain their natural vegetative cover or, if this cover has been removed, it must be restored. Farms must execute a prevention and control program that minimizes the risk of soil erosion and reduces existing erosion. Farms must have appropriate treatment systems for all wastewaters they generate, and they must not deposit any organic or inorganic solids into natural water bodies.



**Forestry:** Forest managers maintain, enhance and/ or restore the plant and wildlife habitat of riparian management zones. They implement guidelines that control erosion and prevent environmental impact, including minimizing soil disturbance, providing adequate shade to protect water temperature, protecting stream banks, maintaining tree cover, and minimizing the disturbance of floodplain areas to ensure that proper aquatic function will be provided when channels shift. Grazing by domesticated animals is controlled to protect instream habitats and water quality.

**Tourism:** Tourism businesses manage their water consumption efficiently to ensure rational use of water, protect water quality and avoid activities that jeopardize future availability or degrade the source. Businesses monitor their water consumption, keep records and analyze the results of the measurements to improve their resource conservation and rational use efforts. When possible, businesses use devices to reduce water consumption.

#### **Protecting Waterways: Our Impacts**

Dead zones—where massive algae blooms have killed off other ocean life—have become increasingly common in areas where rivers drain into oceans, and studies have shown the main culprit to be runoff from farms into nearby waterways. Excessive fertilizer and animal manure makes freshwater too rich in nitrogen and phosphorus.

When this potent brew flows downriver and reaches coastal areas, it can produce red or brown tides, as algae blooms are called, that release toxins poisonous to mollusks, crustaceans and fish. Further, bacteria that consume the decomposing algae deplete the area of oxygen, asphyxiating other living creatures that share the space. In addition to the environmental damage they cause, dead zones also threaten the economic survival of local fishing, tourism and other maritime-based industries, depriving coastal communities of their livelihoods.

Our programs' water-protection standards are good news for animals, plants and the people who catch fish and consume water from local sources. Because our standards require that land managers avoid contaminating waterways, reduce water consumption, monitor water quality and treat wastewater, the positive effects of our standards can be felt far downstream.

#### Nicaragua: Agricultural Practices That Protect Waterways

To see how these standards work in practice, we can look to Nicaragua's Finca La Bastilla, a farm that treats all its wastewater in anaerobic biodigestors and releases it into a system of collection ponds for purification before returning it to the ground. In Guatemala, the owner of Finca Buenos Aires has replanted native trees on his certified coffee farm, and a 33-foot buffer zone protects the

#### Water Protection in Côte d'Ivoire

certified cocoa farms noncertified cocoa farms



implemented water protection measures

farm's ten springs and two rivers from erosion and water pollution.

In Côte d'Ivoire, a 2012 study of cocoa farms showed both that certified farms implemented more water protection measures, and that their waterways showed less erosion than noncertified farms. It found that 80 percent of certified farms implemented water protection measures, compared to 17 percent of noncertified farms.<sup>52</sup> When streams flowing through cocoa farms were examined for signs of erosion, the certified farms scored consistently higher than noncertified.<sup>53</sup>

Finally, a study of waterways and streams on farms in Colombia showed that Rainforest Alliance Certified coffee farms scored significantly higher

than noncertified farms on a stream-health index, with higher levels of dissolved oxygen and a larger presence of sensitive macroinvertibrates such as mayflies, stoneflies and caddisflies—species whose presence indicates ecosystem health.54

#### Costa Rica: Sustainable Tourism Businesses Conserve and Protect Water

Hotels and lodges typically consume vast quantities of water and often produce untreated effluent that is released into nearby waterways. But tourism business that work with the Rainforest Alliance are required to draw up and implement plans to conserve water use and monitor the results of their efforts, seeking continuous improvement year after year.

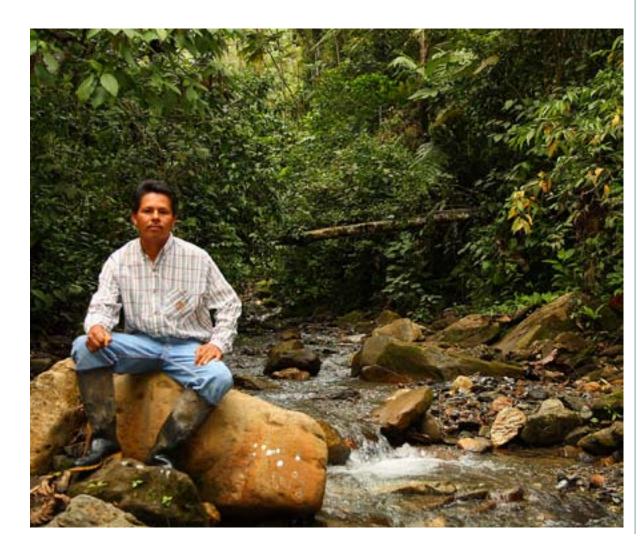
A study of lodges in the Sarapiquí region of Costa Rica revealed that those that adopted our recommended practices conserved water and avoided contamination through a variety of approaches, including switching to biodegradable soaps, installing water-dosing systems in laundry rooms and using anaerobic digesters to eliminate effluent and subsequent runoff into rivers. The results can be dramatic. As a result of adopting Rainforest Alliance recommended practices, one Nicaraguan hotel reduced water consumption by 71 percent.<sup>55</sup>

> farmer Ivan Vega poses next to the protected stream running through his farm. photo by David Dudenhoefer

Colombian coffee

**Environmental** 

**Impacts** 







Previous page A young boy on a vanilla farm in Madagascar. photo by

Noah Jackson

Left Workers on a Vietnamese coffee farm fill their baskets with coffee cherries. photo by Charlie Watson

### Protecting People, Families and Communities

arth is home to more than 7 billion human ◀ inhabitants, and that number is rapidly growing, particularly in some of the world's poorest communities. The global population is expected to reach 10 billion by 2100, and most of the growth will take place in developing countries.<sup>56</sup> Even a quick glance at these statistics tells us that it would be impossible to address our planet's environmental challenges by simply fencing off forests and other ecosystems and hanging a "Do Not Enter" sign. The resource demands of our ever-growing global population cannot be ignored.

The Rainforest Alliance's founding mission was to protect rainforests, but we quickly learned that creating positive social impacts is as integral to that mission as conserving the environment. It's not possible to achieve one without simultaneously working toward the other. People who depend on resource-based jobs such as farming and logging are vulnerable, subject to the orders of their employers and to changes in economic or environmental conditions, to the threat of illness, hunger and poverty. Under these conditions, it is easy to understand how they can be pressured into unsafe or illegal farming and logging practices, poaching, harvesting of rare flora to sell on the black market or clearing trees for subsistence farming.

Considering that billions of people depend on resource-based livelihoods, it is also easy to appreciate the importance of putting these livelihoods on a sustainable footing. That is why we have devised layered, multidimensional practices that sustain livelihoods while upholding the needs and rights of workers, including their right to decent livelihoods, to house and feed their families, maintain their health and protect their communities.

#### Labor Rights: Our Standards57

Today, the Rainforest Alliance's programs directly affect more than 4.7 million people—including nearly 1 million full- and part-time workers and their family members.<sup>58</sup> Indirectly, our programs have wider social impacts, reaching many millions more in the communities where these families live.

Our agriculture, forestry and tourism programs use extensive labor criteria designed to protect workers, covering issues such as hiring, wages, safety, job hours and the right to organize. Although each program is sector-specific, and there are differences among them, they all share key common principles:

**Agriculture:** Certified farms must directly hire their workforce, and workers must receive pay more than or equal to the regional average or the

#### Full- and Part-Time Workers on Rainforest Alliance Certified or Verified Operations, by Division<sup>59</sup>

Sustainable Agriculture

Sustainable Forestry

Sustainable Tourism

874,580 86,610 5,926

967,116

legally established minimum wage, whichever is greater.<sup>60</sup> Farms must comply with current labor laws regarding working hours, rest periods, paid vacation and holidays. All overtime must be voluntary, must be paid at a higher rate than normal working hours and must not exceed 12 hours per week. Workers must have the right to organize and voluntarily negotiate their working conditions in a collective manner. Housing must be well-designed, built and maintained, and living quarters must be separate from production areas.

Forestry: Hiring practices and conditions of employment at Rainforest Alliance/FSC operations are nondiscriminatory and follow applicable federal, state and local regulations. Forest workers are paid fair wages, and employee compensation and hiring practices meet or exceed the prevailing local norms within the forestry industry. Workers are guaranteed the right to organize and voluntarily negotiate with their employers, and they are free to associate with other workers for the purpose of advocating for their own employment interests.

**Tourism:** Rainforest Alliance Verified tourism businesses must comply with labor criteria that adhere

to local laws and international agreements when applicable. Businesses ensure that working conditions serve the physical and emotional well-being of their employees. They keep records that show punctual payment of salaries at the legally established rate, payment into the social security system and compliance with other labor-related benefits like paid vacations, bonuses and overtime pay.

#### **Labor Rights: Our Impacts**

### Certified Farmers in Nicaragua Have Better Working Conditions

Nicaragua is the poorest country in Central America and the second poorest in the Western Hemisphere. According to the United Nations Food and Agriculture Organization (FAO), 48 percent of the country's 6 million people live below the poverty line, and 27 percent of Nicaraguans suffer from malnourishment. In this context, the country's shaded coffee farms are not only a boon to wildlife; they also help support more than 45,000 Nicaraguan families and make a vital contribution to the national economy.

### Kenya: A Good Environment for Workers

In the highlands of southwestern Kenya, where the unemployment rate hovers around 20 percent, jobs on Unilever Tea Kenya's Kericho Estate are in high demand. "It's a good place to work," explains part-time tea-leaf plucker Samuel Kasera. "Everyone wants to work here."

Employees on the estate, which has been Rainforest Alliance Certified since 2007, earn three to five times the national average.

"The money means we are saving so we can afford to educate our daughters at secondary school and university," says Rael Cheket Limo, another parttime plucker. "I hope they will become pilots or even doctors."

Workers like Limo and Kasera also receive a full range of benefits, including decent housing, access to quality education and free healthcare for themselves and their families. Kericho has its own well-equipped hospital as well as a network of community health centers.

Social Impacts
Simon Sigali poses

with a watering can in the nursery where he works on the James Finlay tea estate in Kenya. photo by Caroline Irby

wildlife; they also help support more than 45,000
Nicaraguan families and make a vital contribution
to the national economy.

Perified tourism busical criteria that adhere

In 2010, Social Accountability International (SAI),

workers around the world, conducted a study comparing the social impacts of 10 Rainforest Alliance
Certified farms in Nicaragua with 10 noncertified farms.

farms. 61 Researchers found that certified farms outperformed noncertified farms in several areas (see chart on previous page).

#### Brazil: Better Training, Higher Wages

South America's Atlantic Rainforest once extended from Brazil through Argentina, but excessive timber extraction coupled with the conversion of forests to cattle pasture and cropland has destroyed all but 7 percent of the original forest. Brazil has therefore turned to its southern plantation forests as an alternative timber source. Although they total less than 1 percent of the country's forest area, these plantation forests produce 60 percent of the country's industrial roundwood and provide vital employment in the region.

an organization that works to protect the rights of

In a 2009 study of plantation forests located in Brazil's Rio Grande do Sul and Santa Catarina regions, our Brazilian partner group, Imaflora, compared Rainforest Alliance Certified forestry operations to noncertified enterprises. <sup>62</sup> Certified forestry businesses significantly outperformed the noncertified in several areas (see chart on previous page).

#### Côte d'Ivoire: More Stability for Cocoa Farmers on Certified Farms

Côte d'Ivoire is the world's largest cocoa producer, responsible for 40 percent of global cocoa production, and about one-third of the nation's 20 million people depend, either directly or indirectly, on cocoa farming. Still, most Ivorian cocoa farmers are poor; more than 90 percent farm small plots of less than 7.4 acres (3 hectares) and earn less than a dollar a day per household member.

To assess how certification has been working

in Côte d'Ivoire, the Rainforest Alliance commissioned the Committee on Sustainability
Assessment (COSA) to conduct research. COSA's
2009 survey compared 95 noncertified cocoa farms
with 102 Rainforest Alliance Certified cocoa farms
(at the time of the study, these farms had been
certified for two years or less). Among certified
farmers, 90 percent said that their situation had
improved since they began the certification process. Despite being in the midst of a period of significant civil unrest, nearly two-thirds of certified
farmers said that they always had enough food,
compared to 45 percent of noncertified farmers.

#### Certification Benefits Workers and Communities Near World Heritage Sites

A 2011 study of FSC/Rainforest Alliance Certified forestry businesses located near UNESCO World Heritage sites (see page 21) found that these businesses addressed issues of wages and safety and working conditions, and helped encourage the viability of their surrounding communities through local purchasing and hiring. <sup>64</sup> These actions benefited not only the people living and working nearby but also the environment: well-paying, safe jobs around protected areas are a critical means of reducing incentives to engage in destructive activities within reserves, such as illegal logging or wildlife poaching.

#### Pesticides, Waste and Human Health: Our Standards

Conventional pesticides continue to pose significant health hazards to communities around the world, particularly in developing countries. Banned toxic substances are still in use and continue to contaminate waterways and endanger wildlife and humans. Widespread availability and the misuse of toxic chemicals are associated with elevated rates of childhood cancers, 65 as well as with nausea, chest pain, limb cramps and reduced neurological and cognitive abilities. 66

#### **Working Conditions: Farms in Nicaragua**

- Rainforest Alliance Certified farms
- 94% 44%

noncertified farms

workers are provided with housing

99% 65%

workers have access to potable water



written contracts established



occupational safety & health risks evaluated by work area



freedom of association for collective bargaining

#### **Working Conditions: Forestry Operations in Brazil**

- Rainforest Alliance Certified forestry operationsnoncertified forestry operations
- Tioricertified forestry opera



workers are provided with written training materials



tools for communicating in the field are provided



machines have safety structures in place



permanent workers earn more than minimum wage



contracted workers earn more than minimum wage

#### **Social Impacts**

protective gear sprays pesticide at a flower farm in Colombia. photo courtesy of Elite Colombia



The problem of contamination is compounded by the fact that safety practices governing the application of toxic chemicals are often inadequate or unenforced, threatening those who handle them or are inadvertently exposed. While developing countries account for only 25 percent of global pesticide use, they suffer 99 percent of acute pesticiderelated fatalities due to poor safety standards that expose workers and their families to grave health risks.67

Rainforest Alliance programs require farms and forests to eliminate pesticides to the maximum extent possible, and to progressively reduce the chemicals they use over time. But we also recognize that some chemicals may be necessary in some situations. For example, black sigatoka, a fungus that kills bananas, cannot so far be managed organically, despite extensive research into chemical-free solutions. Currently synthetic fungicides offer the only reliable way to kill the fungus. Our programs prescribe integrated pest management, emphasizing natural techniques while permitting certain agrochemicals as needed, to be applied with the most stringent controls.

When agrochemicals must be used, our programs require that farmers and forestry businesses operate under the strictest conditions, designed to protect not only workers who come into direct contact with the toxins but also the communities and ecosystems that surround the business. In 2007, the UK branch of the Pesticide Action Network (PAN),

an international nonprofit group that works to find alternatives to the use of hazardous pesticides, evaluated the pesticide practices of all existing agricultural certification schemes.<sup>68</sup> The Rainforest Alliance Certified program tied for the top honor, and was cited for having the most detailed requirements for health protection. Our program was also praised for mandating regular medical checks and for requiring that neighboring communities be warned about agrochemical spraying.

Here are a few highlights of our guidelines for dealing with chemicals, waste disposal and the health of workers and their families.

**Agriculture:** The standard prohibits the use of 99 pesticides referenced by the Stockholm and Rotterdam Conventions, the US Environmental Protection Agency, the European Union and the Pesticide Action Network; farms must have a plan for eliminating and/or reducing the use of certain chemicals as well as an integrated waste management program to handle all other waste products.<sup>69</sup> In cases where the application of agrochemicals or biological or organic inputs is permitted, farms must take permanent actions to protect workers, neighbors and other people who may be affected. Workers who carry out dangerous activities must receive a medical check-up at least once a year, and all workers and their families must have access to medical services during working hours and in emergencies. Workers who come into contact with agrochemicals must use personal pro-



tective equipment, and they must not apply agrochemicals for more than six hours per day. Areas used for agrochemical storage and distribution must be designed, constructed and equipped to reduce the risk of accidents and negative impacts on human health and the environment. Farms must have showers and changing rooms for all persons that apply or come in contact with agrochemicals, and clothing worn while applying them must never be washed in workers' homes.

Forestry: A variety of pesticide classes are prohibited.<sup>70</sup> Management systems must promote the development and adoption of environmentally friendly, non-chemical methods of pest management and strive to avoid the use of chemical pesticides. If chemicals are used, proper equipment and training are provided to minimize health and environmental risks. Whenever feasible, an eventual phase-out of chemical use is included in an operation's management strategy. Forest owners or managers meet or exceed all applicable laws and/ or regulations covering the health and safety of employees and their families. Chemicals, containers and liquid and solid non-organic wastes shall be disposed of in an environmentally appropriate manner at off-site locations. Forestry operations are also required to meet or exceed all applicable laws and/or regulations covering the health and safety of employees and their families-including providing adequate training and personal protective equipment to ensure workers can complete their jobs in a safe manner.

**Tourism:** Tourism businesses should not pollute any bodies of water, soil or air with contaminants and should avoid purchasing materials that are toxic to people or the environment. In the event that it is unavoidable, appropriate steps are taken to sustainably manage these types of waste. To maintain green areas or gardens, businesses use natural or organic products instead of agrochemicals, and they have a water treatment program for their wastewater, which receives proper and timely maintenance. Businesses have a plan for the

integrated management of their solid waste, which includes a formal purchasing policy that rejects and/or reduces the use of goods that produce waste and avoids using disposable materials. Solid waste is recycled and/or disposed of properly to reduce any negative effects on ecosystems and human health.

#### **Pesticides, Waste and Human Health: Our Impacts**

#### Certified Coffee Farms Do a Better Job of Handling Waste and Pesticides

When we look at studies of agrochemical use in specific regions, the tangible impact of Rainforest Alliance standards is clear. A 2012 examination of Colombian coffee farms offers a striking contrast between the methods that Rainforest Alliance Certified farms and noncertified farms use to handle pesticides and waste.71 Researchers found that certified farms had significantly higher rates of all the following practices:

- The use of protective equipment for chemical application
- Specialized warehouses for the storage of chemicals
- Employee training in the correct application of pesticides and first aid
- The use of a septic tank and the collection of solid wastes.

Among coffee farms in Brazil's Cerrado and Minas Gerais regions, a study found that Rainforest Alliance certification led to better practices for the disposal of wastewater from coffee washing, management of waste produced in the fueling and washing of agricultural machinery, waste and sewage disposal from lodgings and houses, and use of complete protective gear.<sup>72</sup>

In 2009, researchers surveyed farmers from Rainforest Alliance Certified coffee farms in



**Social Impacts** 

Kennedy Okeyo

recuperates at

Unilever Tea

Kenya Central

Unilever's Kericho

Hospital on

Estate.

photo by Caroline Irby

A manager opens a secure chemical storage shed on a tea estate in Argentina. photo courtesy of Imaflora

#### **Social Impacts**

A worker picks

flowers in the greenhouses of a flower farm in Colombia. photo courtesy of Elite Colombia



#### Costa Rica: A Greener Bloom

The flower and fern industry provides vital income to many tropical communities. Flower production in Kenya is the second-largest source of foreign exchange, and the country produces one-quarter of Europe's bouquets, while in Costa Rica the cultivation of leatherleaf ferns brings in \$52 million annually, and fern farms employ 6,000 people at salaries above the rural average.

But jobs in this industry often come at a price. Flower and fern growers tend to use liberal doses of agrochemicals; a typical hothouse might apply up to 50 different pesticides. Because flowers are not food, governments impose few if any restrictions on chemical use. Add to this the requirements of importers, who demand a product free of pests, and you end up with

an industry soaked in hazardous cocktails that threaten local water supplies and, by extension, the health of workers and neighboring communities. One study in Ecuador found that pesticides even affected the health of workers' children, despite the fact that their only exposure to these substances was indirect, via contact with their parents' contaminated skin, clothing and work tools.<sup>73</sup>

To address the dangers of chemical pesticide use in the flower industry, the Rainforest Alliance and our partners in the Sustainable Agriculture Network developed stringent standards for responsible flower and fern production, and more than 260 flower and/or fern farms have earned the Rainforest Alliance Certified seal to date.<sup>74</sup> Among them is Costa Rica's Plantas y Flores Ornamentales (P&F), a leading producer of tropical flowers, ferns and lilies exported to Canada, Europe and the United States.

P&F controls the application of all agrochemicals and employs innovative methods to minimize their use. On one of their farms, native tree species such as almond and bay are planted alongside flowers, and the trees' residuals are mulched in the processing plant to create organic compost, which is used in place of synthetic fertilizer.

The company is also developing a pest-control system that uses vegetable barriers, relying on plants that possess a natural resistance to certain insects, and it no longer allows the open-air burning or dumping of waste. P&F has built a new warehouse to properly store the agrochemicals that it does use, and workers now receive safety training along with access to special washing centers to safeguard their health and that of their families.

Nicaragua.<sup>75</sup> The respondents reported that since their farms were certified in 2004, their workers had improved salaries, better shower and toilet facilities and more access to food. Farmers and their families were able to see private doctors, which they hadn't been able to do before. The respondents reported that the combination of fewer chemicals and a better quality of life led to improved overall health.

#### Ecuador: Reduced Agrochemical and Water-Contamination Risks on Banana Plantations

As the world's leading banana producer, Ecuador produces one-third of all global exports of the crop. The vast majority of the country's banana plantations clear native vegetation and rely heavily on irrigation, fertilizers and fungicides. These practices have resulted in health problems among workers, as our SAN partner in Ecuador, Conservación y Desarrollo, can attest.

In a study in Ecuador that compared Rainforest Alliance Certified farms to noncertified farms, the certified farms performed significantly better on measures of land management, agrochemical use and waste disposal, and water quality. The study examined factors such as whether a farm had buffer zones along its waterways, refrained from destroying native forests and offered pest-control training to its workers.

## Sustainable Tourism Businesses Reduce Waste and Improve Worker Health

The Rainforest Alliance is also leading the way to significant improvements in the tourism sector. A survey of 14 tourism businesses that have collaborated with the Rainforest Alliance in five countries<sup>77</sup> found that:

- 71 percent of the businesses reduced solid waste by recycling water bottles, paper and cardboard and reusing materials such as plastic containers, bottles and office paper.
- The remaining 29 percent maintained stable waste levels even as the numbers of visitors to their operations increased.
- After implementing new practices related to food procurement and storage, 86 percent of business owners reported improvements in the health of their employees and clients.
- The adoption of safety measures contributed to improved job quality and reduced risk of accidents among 93 percent of the businesses.

## Brazil: Certified Forestry Operations: Improved Safety and Access to Medical Care

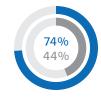
Located deep in the heart of the Amazon, the Brazilian state of Acre is rich in biodiversity, yet more than 40 percent of Acre's 700,000 inhabitants live in poverty. Many residents rely on their forests for food and income, and in the 1990s many localities within the state established their own community-run forestry operations, some of which achieved FSC certification through the Rainforest Alliance's partner group, Imaflora.

A 2009 study of Acre's community-managed forestry enterprises compared five FSC/Rainforest Alliance Certified operations to two that were noncertified, and researchers found certified operations replaced open-air waste pits with compost heaps and landfills.<sup>78</sup> Among members of certified enterprises, 35 percent had taken part in a safety course, compared to 9 percent of their noncertified peers.

As part of the same study, Imaflora also examined pesticide, safety and healthcare practices in

#### Safety & Medical Care: Forestry Operations in Brazil

- Rainforest Alliance Certified farms
- noncertified farms



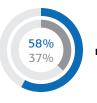
workers use protective gear



protective gear is properly washed



protective gear is properly stored



meals are provided in the field



medical care is provided in case of work-related injuries



regular medical examinations are offered

the country's southern plantation forests. Once again, they found striking contrasts between FSC/Rainforest Alliance Certified operations and noncertified forestry businesses (see chart on previous page).

#### **Protecting Children and Women: Our Standards**

The developing world is home to 80 percent of the planet's children, including 94 percent of all non-enrolled school-aged children. According the UN International Labour Organization (ILO), approximately 215 million children work, often full-time, with no chance of attending school or obtaining proper nutrition or care. Among the world's child laborers, ages 5–17, 60 percent work in agriculture (defined by the ILO as farming, fishing, aquaculture, forestry and livestock). Not surprisingly, poverty is the main cause of child labor in agriculture, compounded by limited access to quality education.

Within the world's rural communities, the poorest of the poor are often women and girls who lack regular and decent employment. They face hunger and malnutrition as well as poor access to healthcare and education. According to the ILO, rural women are disproportionately employed in low-quality jobs, including jobs in which their rights are not adequately respected and social protections are limited. In addition, women get paid about 25 percent less than men.<sup>79</sup>

At the same time, there are many countries around the world (including, until not very long ago, the United States) where it is normal for children in rural communities to work alongside their parents and siblings on family farms. For the purpose of our standards, the key is finding the right balance of always safeguarding children from exploitation and ensuring that they have access to education, while still allowing them to contribute to their families' livelihoods in cases where such help is crucial and doing so does not put the children's health at risk.

In order for our work to be successful in effecting long-term social change, we've taken steps to protect women and children, who have traditionally been most threatened by exploitation and neglect. Here are some of the criteria that Rainforest Alliance programs use to address their needs:

Agriculture: On Rainforest Alliance Certified farms, workers under the age of 15 may not be contracted for full- or even part-time work.<sup>80</sup> Workers between 15 and 17 must not work more than 8 hours per day or more than 42 hours per week. Their work schedule must not interfere with educational opportunities, and they must not be assigned activities that could put their health at risk, such as the handling and application of agrochemicals. All farms (even those where no minors are working) must guarantee access to education for school-age children who live on the farm. Any type of forced labor is prohibited, and farm supervisors must not threaten, sexually abuse or harass, or verbally, physically or psychologically mistreat workers for any reason. The farm must offer equal pay, training and promotion opportunities and benefits to all workers for the same type of work.

**Forestry:** Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups (both men and women) directly affected by management operations. Forestry operations must meet the provisions of

Strict certification standards protect children, like these Vietnamese boys, from exploitation on Rainforest Alliance Certified farms. photo by Charlie Watson



all binding international agreements, including ILO conventions on mininum-age requirements and equality of treatment.

**Tourism:** Businesses must ensure equal working conditions for all employees, restrict child labor and ensure respect for women's rights, including the rights of women who are pregnant or breast-feeding. Tourism businesses follow practices that ensure respect for cultural, race and gender diversity, avoid child labor, and they take steps to prevent drug consumption, prostitution and all types of child exploitation.

#### **Protecting Children and Women: Our Impacts**

### More Children Attend School on Rainforest Alliance Certified Operations

Education has always been one of our abiding values, and nowhere has this been more evident than on Rainforest Alliance Certified farms. Our data show that more than 100,000 children have received some kind of educational assistance from Rainforest Alliance Certified farms, including individual scholarships, funds and/or supplies that farms have donated to schools.

For a specific example of our impact in this area, we can look to Brazil. In a 2009 comparison of Rainforest Alliance Certified and noncertified forestry businesses in the southern part of the country, the difference in school attendance figures was dramatic: Among certified operations, 85 percent of the school-age children of resident workers attended school, compared with only 15 percent of those on noncertified operations.<sup>81</sup>

### Greater Opportunities for Women and Children on Certified Farms

When it comes to the well-being of children and women, Rainforest Alliance certification leads the way, even in comparison with other respected certification programs. A 2010 study looked at more than 300 Nicaraguan coffee farms that were certified under three different schemes, and found that Rainforest Alliance Certified farms showed the greatest involvement of women in production and household decision-making. And in a separate study, also conducted on Rainforest Alliance Certified coffee farms in Nicaragua, farmers said that after certification, children had more opportunity to go to university and women learned more about farm management.

#### Verified Tourism Businesses Help Fight Sexual Exploitation

A 2010 study of 14 enterprises that participate in our sustainable tourism program found that 94 percent had taken part in international and regional campaigns against the sexual exploitation of minors, a global scourge that requires the continued vigilance of the travel industry.<sup>84</sup>



### Costa Rica Hotel Improves the Lives of Local Women

In the shadow of Costa Rica's Arenal Volcano sits the Hotel Las Colinas Arenal, a small ecofriendly hotel that has been Rainforest Alliance Verified since 2010. To earn the verification, the mother-and-daughter team that owns and manages the hotel, have made a host of changes, including reducing water and energy use and remodeling the property with an eye toward sustainable design. But owners Flor Fernández and Ivette López wanted to do more than run an environmentally responsible and economically successful hotel, so they also began working to nurture the financial stability and leadership capacity of women in their community.

Of the hotel's seven employees, five are women who are heads of their own households. In 2012, an enormous part of the business' commitment to sustainable tourism now involves training designed to enhance employees' skills, raise awareness about environmental and social responsibility, and improve the hotel's procedures. Even more notable, the hotel's frequent training sessions are also open to local women who are not employed by the business.

Since the hotel became verified, its neighbors have come to see it as more than just another travel enterprise. And for López and Fernández, the verification has earned them legitimacy, particularly among women who are now participating and taking leadership roles in their community—activities that were traditionally handled and shaped by men. Describing the transformation, López says, "I have come to meetings where I was the only woman. At first it was not easy, but things are different now; people recognize the name of the hotel and our names as individuals, and they pay attention to us."

Not content to help only women, López and her mother also collaborate with schools and other community organizations on a variety of volunteering initiatives. They helped connect one local school to Canadian and American students who traveled to the community to paint classrooms and plant a garden, and the women have donated hundreds of dollars' worth of educational materials to area children.

**Social Impacts** 

Hotel Las Colinas in Costa Rica has been Rainforest Alliance Verified since 2010.

photo courtesy of Hotel Las Colinas

#### Children on Certified Cocoa Farms in Côte d'Ivoire More Likely to Attend School

Like some cocoa farms in neighboring countries, Côte d'Ivoire's cocoa industry has been sharply criticized for its use of forced child labor in the harvesting, processing and transport of cocoa pods. A 2005 study in West Africa by the ILO found that 284,000 children, 64 percent of whom were under the age of 14, were working in hazardous conditions on cocoa farms, the majority of which were in Côte d'Ivoire. So Given that the cocoa industry is the main source of livelihood for one-third of the country's population, these conditions have a profound impact on society.

Although entrenched habits take time to change, our work in Côte d'Ivoire's cocoa industry has already demonstrated promising signs of progress. In 2009, the Committee on Sustainability Assessment (COSA) conducted 200 visits to Rainforest Alliance Certified farms and noncertified control farms and found significant differences between the two, despite the fact that the certified farms in the study had received their certification within just two years of the visits. <sup>86</sup> Certified farms demonstrated a 20 percent higher rate of regular school attendance by children than noncertified

farms, and this improvement was especially pronounced among girls.

In the second stage of the study, conducted in 2011, researchers found that more than half of the children on certified farms had reached an age-appropriate grade level, compared with just 13 percent of children on noncertified farms.<sup>87</sup> Considering that Côte d'Ivoire faced great civil unrest during the same period, the differences between social conditions on certified and noncertified farms were striking.

#### Costa Rica: Tourism Businesses Helping Children

Just a few decades ago, the economic life of Costa Rica's Sarapiquí region focused on farming, and deforestation was a major problem in the area. Since that time, however, the region has undergone a transformation. Thanks to the establishment of several spectacular nature reserves and parks, Sarapiquí has become a popular ecotourism destination and is now home to lodges and restaurants that cater to ecofriendly international tourists. Even local farmers have become involved in sustainable tourism, offering nature-based activities to visitors.

The "Healthy Kids,
Healthy Forests"
program takes
advantage of the
ramón nut's many
uses to benefit
schoolchildren
and local women
in Guatemala's
Petén region.
photo by
Charlie Watson



Guatemala: The Fruits of the Ramón Tree

Planted by the ancient Maya, and once found throughout Central America, the ramón tree provides habitat for spider and howler monkeys, retains soils and water, and helps to regulate the global climate. But it's the fruit of the ramón that holds the greatest potential for communities within Guatemala's

Maya Biosphere Reserve, providing local people with a tool to alleviate poverty, conserve forests, improve health and nourish their children.

Through "Healthy Kids, Healthy Forests"—a program launched by the Rainforest Alliance and our partners in Guatemala—communities within the reserve are capitalizing on the nut's many benefits. The world's first ramón nut—based school lunch program

is helping to feed more than 8,000 children from 46 rural communities while providing jobs for area women, offering a powerful incentive for forest conservation.

After school and on weekends, local children collect ramón nuts from the forest and deliver their haul to a bakery where they are paid for each pound they gather. There, an all-female staff removes the nuts' tender skin before roasting them. "Before, I had no job," says Lubia Flores Rodríguez, who works in the Ixlú bakery. "Now I come to work, and I am able to make a living."

After roasting, the nuts are ground into a flour that is distributed to teachers and school boards in nearly 50 communities throughout Guatemala's Petén region. Naturally high in calcium, fiber and potassium, ramón-nut flour is used to make wholesome food for school lunches and provides a constant reminder of why it is so vital to leave these towering trees standing.

Several of Sarapiquí's tourism businesses have been working with the Rainforest Alliance and have taken steps to advance the education of children in their community. A 2008 study examined five Sarapiquí hotels that have participated in our program, measuring their compliance with Rainforest Alliance criteria before and 18 months after implementing the sustainability practices that we recommend. On a scale of 1 to 10, with 10 being full compliance, researchers found that for the criteria related to "Sociocultural and Community Aspects," the average hotel score nearly doubled, from 4.7 to 8.6.

The efforts of these businesses have helped local children in a variety of tangible ways: one hotel taught composting techniques to students and teachers and then purchased the compost they made from the school, while another business trained local youth in hotel management and offered the young people jobs after graduation.

#### **Community Engagement: Our Standards**

The Rainforest Alliance's standards aim to improve the lives not only of people working for certified or verified operations but of the communities they live in. For better and worse, farms, forestry operations and tourism businesses powerfully affect the surrounding community. The impacts are felt not only by spouses, children and extended families of workers, but also by residents of neighboring towns and communities. This is why certified and verified operations have always been required to conduct public consultation with and outreach to all stakeholders who might be affected by their decisions.

Beyond protecting local people from harm, we know that our work has had many positive ripple effects, growing local economies by helping to keep valuable income within communities, inspiring area residents to care for their natural resources and educating the next generation of residents on the importance of sustainability. Here are some of the guidelines on community engagement that certified and verified operations must follow:

Agriculture: Farms must implement policies and procedures to identify and consider the health, employment and natural-resource impacts of their activities on local populations. Farms must prioritize the hiring and training of local employees and the contracting and acquiring of local services and products. Farms must respect areas and activities that have social, cultural, biological, environmen-

#### Hotel Performance in Sarapiquí, Costa Rica (scale of 1–10, 10 represents full compliance)

■ before implementing sustainable practices

■ 18 months after implementing sustainable practices

overall performance

4.5 7.8

solid waste

3.7

water and contamination

3.6
6.5 sociocultural and community aspects

4.7

Almendro y Corales, a boutique eco-lodge in Costa Rica, concentrates on sustainable operation and conservation. photo by Esteban Ericksen

tal and religious importance to the community. All complaints against a farm must be made public. Farms must have a legitimate right to land use and tenure, demonstrated by appropriate official documentation.

**Forestry:** Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product. Local communities should be given opportunities for employment, training and other services; goods and services of equal price and quality should be purchased locally. Local communities with legal or customary tenure or use rights shall maintain control over forest operations unless they delegate control with free and informed consent. Forest owners/managers understand the likely social impacts of management activities—including effects on archeological, cultural and historical sites, public resources and economic opportunities—and incorporate this understanding into the planning and operation of their businesses.

**Tourism:** Tourism businesses must have operating practices that promote local economic development, such as giving priority to local service providers and hiring local personnel, as well as the social development of the local community, which includes participation in the planning and development of artistic, sporting or other events through financial or other contributions. Businesses show respect for the customs and cultures of their communities and provide clients with information regarding proper conduct when visiting public and private areas within the local culture. Businesses must ensure that basic services they need for operation (water, energy, food, etc.) do not negatively affect the supply of these services to local communities.

#### **Community Engagement: Our Impacts**

**Boosting Demand for Local Products and Services** 

In a 2010 study of 14 tourism businesses that participate in our program, researchers found that these enterprises increased their level of sourcing from local micro-, small- and medium-sized enterprises.89 And a separate tourism study showed that in Sarapiquí, Costa Rica, hotels that participated in our program were actively engaged in supporting their local communities in a variety of ways, including sponsoring a community fair at which local businesses and artisans could sell their products and interact with hotel visitors and staff.90

#### Canada: Listening to Indigenous Communities

Canada's boreal forests cover more than 1.23 billion acres (500 million hectares) and provide nesting grounds for more than 3 billion migrating birds and a haven for mammals such as wolves, moose and bears. They are also home to 2.5 million people, about 1 million of whom are of aboriginal descent. In addition to relying on these forests as

a source of employment, firewood, game and other resources, indigenous communities have built strong cultural and spiritual connections to the forests over the centuries.

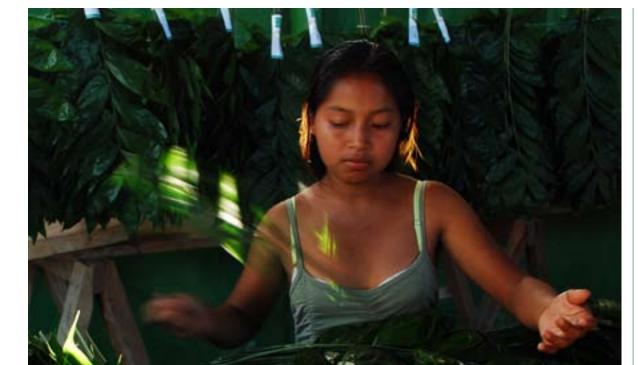
Historically, native communities, companies and government agencies have often disagreed over who has the right to access and extract resources such as timber, oil and gas from forestlands. As demand for these products increases, so too does the potential for renewed conflicts. But in areas where competing interests would otherwise be at odds, FSC certification has been a useful tool for resolving differences while still protecting ecosystems and the rights of indigenous peoples.

In 2009, researchers conducted an extensive study of three large FSC-certified forestry operations in Canada's boreal forests: Alberta-Pacific Forest Industries in northeastern Alberta, Tembec's operations in Quebec and Mistik Management in northwestern Saskatchewan.<sup>91</sup> (The first two businesses were certified by the Rainforest Alliance, and the third was certified by another FSC-accredited body.) All three companies manage large government licenses. The study found that FSC certifica-

- Helped strengthen the consultation processes, ensuring that the needs of aboriginal communities were taken into account before certification was awarded
- Played a key role in identifying weaknesses in the companies' relationships with these communities
- Helped raise awareness of aboriginal issues among company representatives
- Helped leverage financial resources for aborig-







#### Guatemala: It Takes a Village to Conserve a Forest

Encompassing the largest stretch of contiguous tropical forest in Central America, Guatemala's Petén region harbors more than 300 tree species and is a haven for endangered animals such as jaguars, howler monkeys and scarlet macaws. It is also the site of the famed Mayan ruins of Tikal. But in a country where four out of five people live in poverty and a region where the annual population growth rate is as high as 10 percent, it's not surprising that the Petén's natural and cultural resources are threatened by illegal logging and encroachment.

Benedín García, president of a local community organization, has lived in the area for more than 50 years and has witnessed the ever-changing landscape. "The forests I knew when I was younger are very different than the forests we have today," he said.

In 1982, the government of Guatemala established the 5 million-acre (2 million-hectare) Maya Biosphere Reserve (MBR) to conserve the region's natural and archaeological treasures. The MBR includes a core protected area as well as zones dedicated to sustainable agriculture and forestry activities, such as FSC/Rainforest Alliance Certified community-run forestry concessions, which provide local communities with badly needed income. In addition to offering guidance on logging activities (see page 20), the Rainforest Alliance has also trained residents to harvest palm leaves and other non-timber forest products sustainably and helped them find a market for their certified products. "[The forest] provides us with all of our needs," said García. "We are beginning to manage our forest in a sustainable way. We have no option if we want to leave the same environment for our children."

While certification has increased profits for many of these forest

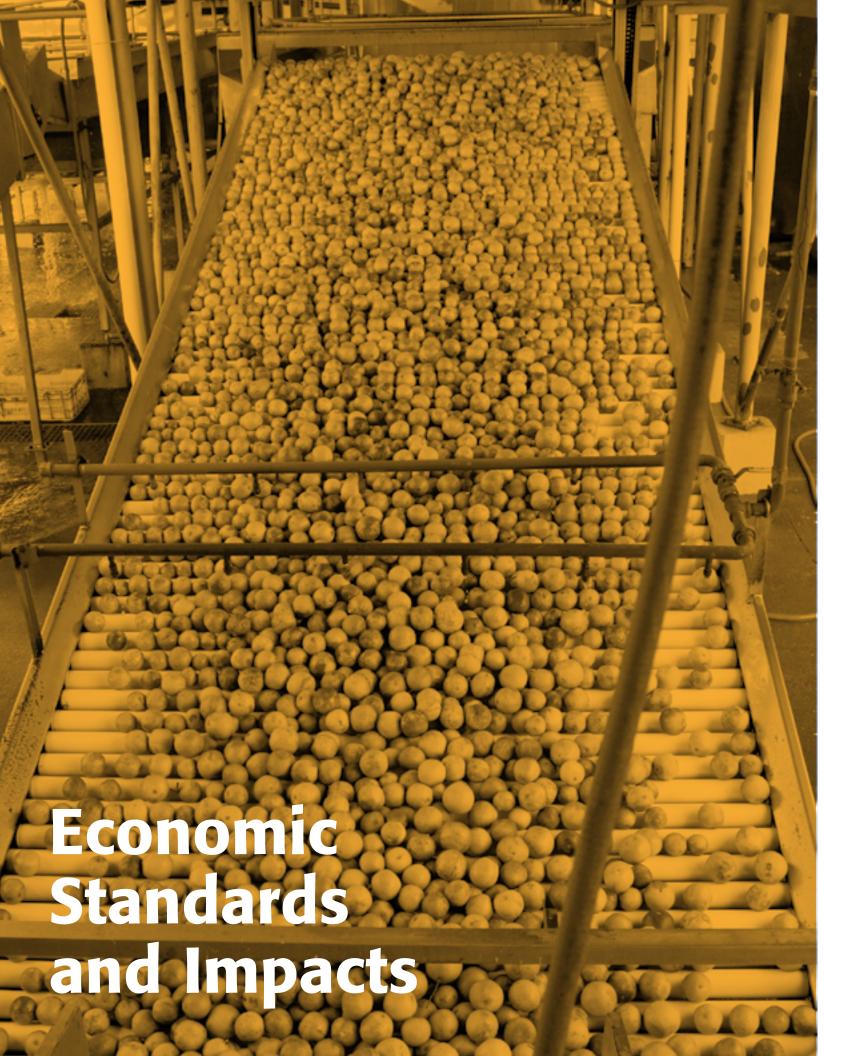
communities, the Rainforest Alliance has also worked with them to develop an additional source of income through the sale of carbon sequestration credits. Known as GuateCarbon, the project rewards local communities by helping them earn payments for the carbon emissions that are kept from entering the atmosphere by preserving intact forest. The program supports the people's local economy, meets pressing social needs and counterbalances pressures that have led to forest clearcutting and burning in the past.

Through the Rainforest Alliance education program, we are also helping to train a new generation of conservationists, giving teachers in the MBR the knowledge and tools to educate their students about biodiversity and climate change and inspire children to protect their forests for years to come. (See page 61 for more about our MBR conservation curriculum and workshops.)

**Social Impacts** 

The Rainforest Alliance has trained residents of the Maya Biosphere Reserve to sustainably harvest xate palm leaves, which are used decoratively throughout the United States and Europe. photo by Charlie Watson

Rainforest Alliance auditors review a forestry operation in Canada. photo by Tom Clark



#### **Sustainability Boosts the Bottom Line**

Rainforest Alliance Certified and Verified businesses are quietly transforming local communities and global markets. Three percent of the world's working forests, nearly 10 percent of the world's tea production and 15 percent of the world's banana farms are now Rainforest Alliance Certified and under sustainable management. More than 10 percent of global commodities in key sectors operate under some kind of sustainability standard worldwide, and this number is rapidly growing. 92

When forest businesses and communities take better care of their natural resources, reduce waste, increase efficiency, improve their marketing and ensure that their workforce is happy and healthy, they become more competitive in a rapidly changing global economy. Our standards support the livelihoods of those in the agriculture, forestry and tourism industries, and by putting communities on more sustainable footing, our programs help eradicate poverty and accelerate the development of the global sustainable economy.

The economic survival of forest and farming communities often depends on their ability to manage many kinds of uncertainty, from natural disasters to market volatility. The work we do mitigates these risks, gives community members more control over their own lives and livelihoods, and nurtures success over the long term.

Two billion people around the world rely on resource-based livelihoods, and this number is rising as populations increase, emerging economies expand and global demand for food and other commodities grows.<sup>93</sup> To feed a global population projected to reach 10 billion by the year 2050, agricultural yields must increase to 75 percent of their known potential on existing farmland—in other words, through more efficient use of existing land, not through more clearing of forests.<sup>94</sup>

## Economic Viability (Yield, Income and Sustainable Livelihoods): Our Standards<sup>95</sup>

For Rainforest Alliance Certified or Verified companies to maintain and expand their sustainability efforts and create positive social and environmental impacts, they must first stay in business. The volatility of markets, commodity prices and national economies often threaten farms and forests, and sustainable businesses must cultivate financial health and resilience to survive and thrive in today's global marketplace. Economic viability cannot be separated from environmental and social sustainability, and that's why we have built it into our standards. Our standards set a high bar for efficient management, resource conservation, worker training and investment in operational improvements such as researching and purchasing equipment, with the ultimate aim of ensuring that certified businesses are cost-effective, high-quality enterprises.

Agriculture: Farms are required to track their energy use, work to reduce it and use renewable energy sources whenever possible. They must track consumption of agrochemicals and work continually to reduce and eliminate them. They use organic fertilizers, compost organic waste and plant cover crops to protect and improve soils. Non-organic wastes are recycled, and farms are kept clean and orderly. Certified farms



Previous page

Oranges arrive

for processing at

a Del Oro juicing

plant in Costa Rica.



#### Economic Impacts

Freshly-cut lumber stands in racks at a sawmill in Guatemala. photo by Charlie Watson



reduce greenhouse gas emissions and increase the amount of carbon dioxide they sequester by managing their soil cover; planting trees and other perennial vegetation; properly sourcing and managing fertilizers, fuels and waste; using clean technologies; improving energy efficiency; and reducing tillage. Together, these practices make operations more cost-effective and sustainable while boosting the productivity of existing farmland.

While our additional criteria for climate-friendly coffee farming and cattle grazing are too new to have generated sufficient study data, they have the potential to improve yields dramatically on land that is already under cultivation and, in the case of climate-friendly farming, to give farmers access to a new revenue stream: carbon-offset credits.

Forestry: Economic viability is built into the Forest Stewardship Council (FSC) standard for sustainable management. To conform with the standard, FSC/Rainforest Alliance Certified forestry operations must maintain economic health and ensure that operational budgets take into account the full environmental, social and operational costs of production and make the necessary investments to maintain their forest's ecological productivity. They minimize waste, make the most efficient possible use of harvested resources, diversifying into multiple forest products where possible, and market their products in a way that boosts their businesses, market share and prices by enhancing the value of sustainably produced wood and nontimber forest products..

**Tourism:** Rainforest Alliance Verified tourism businesses have robust management systems integrating sustainability into every aspect of their operations. There are eight required management programs, which include staff training, covering technical, operational and sustainability-related skills; implementing sustainable standards and practices; and educating customers. In addition to monitoring environmental and social impacts, managers of verified tourism businesses must monitor and improve quality, productivity and the economic performance of their products, services, operations, maintenance and staff. Verified tourism businesses must document their marketing and sales plans, specifying their sales, advertising and promotional strategies, as well as their plans for penetrating international tourism markets. Focusing on efficient management enables verified businesses to compete in and help expand the rapidly growing market for sustainable tourism.

### Economic Viability (Yield, Income and Sustainability Livelihoods): Our Impacts

Environmental, social and economic sustainability reinforce one another. Studies of businesses with which the Rainforest Alliance has collaborated have repeatedly found that economic performance improves alongside advancements in environmental and social performance. As farms, forestry operations and tourism businesses work to comply with sustainability standards, they also reap the economic benefits of better management, more efficient use of resources, increased investments

in upgrades, improved staff training and other innovations. As a result, they often see dramatic increases in efficiency, quality, demand and price.

Not surprisingly, these improvements take different forms in different industries: for farmers, higher yields per acre, better harvests, and higher, more reliable income streams; for foresters, more optimal use of harvested resources, fewer rejects, and increased market access for products; for tourism businesses, increased visitorship and market penetration. The context of these improvements also varies from developing to developed countries. But positive economic impacts can be observed across the board, from Rainforest Alliance Certified farms in Africa and Latin America to FSC-certified forests in North America.

#### Côte d'Ivoire: Certification Multiplies Farmers' Incomes

Cocoa is a major global commodity. Grown in tropical countries around the world, the crop's global value is now worth more than \$5 billion, and over the past century the demand for cocoa has steadily increased by an average of 3 percent annually. With recent commitments by Mars, Kraft, Unilever and others to source Rainforest Alliance Certified cocoa, farm acreage under certified cultivation—already globally significant—is certain to grow even further.

Currently, Rainforest Alliance Certification covers more than 130,000 cocoa farms in 11 countries, among them Côte d'Ivoire, the world's largest cocoa-producing country. 6 Despite the recent civil conflict, Côte d'Ivoire still accounts for about 40 percent of the global cocoa supply. About 1 million farmers there grow the crop, while more than 6 million Ivorians depend on the industry for their livelihoods. Most of the country's cocoa farmers remain poor, however, and more than 90 percent of farms comprise very small plots (under 7.4 acres, or 3 hectares) and earn less than a dollar a day per household member. 97

To assess how certification has been working in Côte d'Ivoire, the Rainforest Alliance commissioned a study by the Committee on Sustainability Assessment (COSA). In 2009 and 2011, COSA scientists made more than 450 site visits to Rainforest Alliance Certified and carefully selected noncertified control farms. The data they collected dem-



Economic Impacts

Rainforest Alliance Certified cocoa, which currently makes up nearly 3 percent of the global trade, has been found to lead to higher efficiency, productivity and income for its growers. photo by Katy Puga

onstrates that certified farms produced 508 lbs. of cocoa per acre (or 576 kg/ha), compared with 294 lbs. per acre (334 kg/ha) on noncertified farms. Increased productivity drove certified farms' net income (gross revenues minus costs) up by a factor of nearly four, earning certified farms \$161 per acre (\$403/ha), compared to \$45 per acre (\$113/ha) for noncertified farms.

Higher productivity was not associated with higher costs. Researchers found that the costs of inputs such as labor, biocides and processing were roughly the same on certified and noncertified farms, an indication that increased productivity was due to efficiency gains from better management, extensive worker training and improved farming techniques. The research also showed that the higher net income on certified farms was primarily due to higher productivity, not to price premiums for certified cocoa beans. The focus on sustainability rather than higher prices, which bring only temporary relief, reduces the farmers' dependence on fluctuating market conditions and improves their prospects for long-term stability.

#### Higher Coffee Yields and Better Returns

Across Latin America, coffee farming has traditionally been an engine of economic growth. Unlike Guatemala and Costa Rica, El Salvador developed its coffee industry without the benefit of outside financing and technical assistance, but even so, the country still managed to become one of the

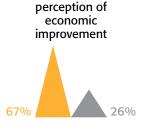
#### Economic Indicators on Cocoa Farms in Côte d'Ivoire99



■ Rainforest Alliance Certified farms



net income, in USD/acre



**Economic Impacts** 

most efficient coffee producers in the world. At its peak in the late 1970s, the coffee sector generated more than 50 percent of El Salvador's export revenues. The industry catalyzed the development of the country's infrastructure, including its roads and railways, and helped integrate indigenous communities into the national economy.

But the civil war in the 1980s led to a dramatic decline in coffee farming, with decreased investments in infrastructure and coffee-tree replacement coupled with a "war tax" that damaged the industry. There was a brief surge in coffee prices in 1997, but poor harvests in 1998 and falling revenues sent prices plummeting again. Between 1997 and 1999, coffee earnings dropped by more than 50 percent. Many farms did not survive the volatility. Once a mainstay of its economy, by 2002 El Salvador's coffee industry contributed only 3.5 percent to the country's GDP. Since 2000, the shrinking coffee market has resulted in the direct loss of 70,000 jobs, a significant loss of employment opportunities in a country of 6 million. 101

Today, Rainforest Alliance certification is helping coffee farmers recover some of these losses. A 2008 USAID study found that El Salvador coffee farms that were preparing for Rainforest Alliance certification and receiving technical assistance had increased their harvests by an average of 89 percent over the previous year—compared to a 25 percent increase among noncertified farms. Reports from coffee exporters corroborated this pattern. The combined value of the improved yields for the farms seeking certification was \$1.8 million.

The study also found that net incomes grew much faster on certified farms than on noncertified ones.

In addition to being able to grow and sell more coffee, certified farms achieved an average bonus of \$13.23 per quintal, representing a combined total price premium of \$1.3 million for all of the farms participating in the project. After factoring in the costs associated with preparing for certification (investments in upgrades, technical assistance, audits, etc.), researchers found that net income on certified farms rose by an average of \$79 per acre (\$198/ha), compared to \$44 per acre (\$109/ha) on noncertified farms.

Though yields and income are trending up from previous lows across El Salvador's entire coffee sector, they have risen much faster on certified farms. Among the certified farms in this particular study, the positive economic impact of Rainforest Alliance certification was due as much to changes in how the farms were being managed as to the bonuses farmers received for certified beans.

In Nicaragua, the poorest country in Central America and the second poorest in the Western Hemisphere, the stakes of a recovery in the coffee sector are even higher. Half of the country's 6 million people are unemployed or underemployed, and just under half of the population lives below the poverty line. Coffee farming supports some 45,000 families, making the industry a bulwark against poverty, one that has been further strengthened by Rainforest Alliance certification.

Several studies demonstrate that Rainforest Alliance Certified farms have outperformed their competitors. In a comparison of noncertified coffee farms with farms that were certified under various sustainability programs, <sup>104</sup> a 2005 Consumers International report found that certified farms earned higher revenues. <sup>105</sup> A 2010

Prospero Trejo manages a coffee co-op in El Salvador. photo by P. Hernandez





USAID study went even further in singling out the high performance of Rainforest Alliance Certified operations. <sup>106</sup> USAID examined more than 300 Nicaraguan coffee farms certified by various programs and found that Rainforest Alliance Certified farms had 20 to 40 percent higher yields compared to farms certified by other organizations. On average, Rainforest Alliance Certified farms produced higher-quality coffee beans and commanded higher prices. The higher income they earned also enabled Rainforest Alliance Certified farmers to reinvest in their businesses, by building permanent coffee processing facilities, for example.

## Competitive Advantages for Certified Forestry Businesses

The economic downturn of 2008 hit the global forestry sector hard, causing a worldwide decline in markets for pulp-based products and a drop in residential construction (especially in the United States) to about a quarter of pre-recession levels. Lumber production worldwide is still down 40 percent and now equals the recession-burdened output of 1984. The impacts of low demand have severely hurt the forestry and the wood-processing sectors and are affecting communities, jobs, wages and prices.<sup>107</sup>

But as markets for noncertified wood and wood products have shrunk, certified wood markets have actually grown, despite economic hardship. In the European Union, where the demand for tropical sawn wood dropped an average of 13 percent per year from 2005 to 2010, the market share of FSC-certified sawn wood in Western Europe grew significantly during the same period, driven partly by government procurement policies. In the United States, the green building trend and LEED standards have also fueled a demand for certified products. <sup>108</sup>

FSC/Rainforest Alliance Certification enables foresters around the world to differentiate themselves from competitors, use limited resources more efficiently and gain other advantages that help them survive and even thrive in particularly tough markets. In addition to making their opera-

tions sustainable and conserving habitats and biodiversity, some certified forestry operations are also commanding higher prices for their products and becoming more profitable. And the presence of these robust, sustainable businesses in turns helps to protect forests and discourage further encroachment.

### Higher Quality and Profitability for Latin American Forest Cooperatives

In Honduras, where we work in sustainable agriculture with SAN partner ICADE, the widespread conversion of forests to cropland and ranchland and the unsustainable (and often illegal) logging of mahogany stands have caused alarming rates of deforestation. In 1982, the Río Plátano Biosphere Reserve was created to preserve the country's largest surviving area of original tropical rainforest. The reserve is home to sensitive ecosystems and great biodiversity, including such threatened and endangered species as the scarlet macaws, leatherback turtles, jaguars and ocelots. It is also home to Ciudad Blanca, one of the most important Mayan archaeological sites.

Since the reserve's creation, 12 community cooperatives have been given the right to harvest timber and non-timber forest products in a multiple-use zone within Río Plátano. In 2005, these cooperatives joined to form an organization that facilitates the consolidation of mahogany shipments into larger volumes, increases value-added processing activities and improves access to financing.

At the same time, the Rainforest Alliance also started working with the cooperatives, providing technical assistance, training and access to new markets. In 2010, our researchers examined the results of this work using a range of measurements taken before and after 2005. 109 They discovered that even though the volume of the community forests' output increased by only 33 percent, the cooperatives' income rose by 128 percent—a jump largely due to the improved quality of the sawn timber. Significantly, although sawmill output rose by 12 percent from 2005 to 2008, rejects decreased from 83 percent to 49 percent. Medium-quality output grew from 2 percent to 36 percent, and high-quality output reached 15 percent in 2008.

Especially in countries like Guatemala, where four out of five people live in poverty, providing a sustainable, profitable alternative to illegal encroachment and creating legitimate farm- and forest-based jobs are key to protecting forests. The work of SAN member and grassroots group FIIT has shown this through its work with local farmers. In addition, a group of community forestry operations known as FORESCOM, located within Guatemala's Maya Biosphere Reserve, was able to make better use of harvested wood, triple sales, sustain hundreds of jobs and bring economic benefits to tens of thousands of people after receiving technical assistance from the Rainforest Alliance.

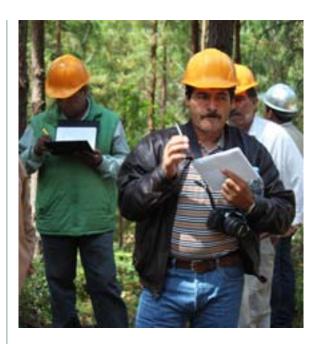
Economic Impacts

measure a felled tree. photo by David Dudenhoefer

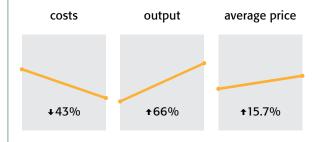
Peruvian loggers

Economic Impacts

Loggers take notes at a Rainforest Alliance training event in Mexico. photo by Eugenio Fernández Vázquez



#### Effects of FSC Certification: San Bernardino Milpillas Chico, Durango, Mexico



In 2010, the Rainforest Alliance studied FORESCOM before and after it received technical assistance. The research shows that in 2003 (before assistance), FORESCOM sold lesser-known wood species as coarsely sawn lumber, while in 2008 (after training) it tripled its prices by selling the same wood as decking, flooring and guitar parts. The new product lines caught on fast, and sales grew dramatically. And even though volume increased by just 5 percent overall, FORESCOM's income from sawn wood more than doubled, from \$2.8 million in 2003 to \$5.8 million in 2008. FORESCOM's member enterprises have generated more than 400 permanent jobs annually, benefiting more than 10,500 people directly and more than 70,000 indirectly.

More than 80 percent of Mexico's forests are under the legal jurisdiction of local communities, or ejidos. In the past, community members rarely participated in or directly benefited from communal forest management. Forestry can be complex and capital intensive—requiring roads, transport infrastructure, skilled labor and access to markets—and few communities have the financial resources or political support to undertake all that is required to turn a profit. As a result, illegal logging and overexploitation by private companies have often hurt ejidos, both economically and environ-

mentally. Mexico has one of the highest deforestation rates in the world, losing about 815,000 acres (330,000 hectares) of forest every year. SAN member Pronatura Sur is helping to stem the loss due to unsustainable agriculture practices.

Meanwhile, in recent decades, Mexico's forest communities have used their increased decision-making authority and government-recognized tenure to establish community-owned forestry businesses. With technical assistance from the Rainforest Alliance, one community forestry operation went from losing money to turning a healthy profit in just three years.<sup>111</sup>

San Bernardino de Milpillas Chico in the state of Durango, achieved FSC certification in 2004 but continued to lose money, so it sought additional technical assistance from the Rainforest Alliance. In the three years that we worked with Milpillas (from 2005 to 2008), the operation attracted \$1.1 million in investments. The money was used mainly for equipment and technical training, both of which helped improve silvicultural practices and forest harvesting. Production costs fell by 43 percent, and sawmill output rose 66 percent. And thanks to wood-processing improvements, quality rose along with quantity, and the average price per board foot increased 15.7 percent. After 36 months of technical assistance, Milpillas turned a \$1.7 million profit.

By staying in business and achieving economic health, Milpillas not only preserved and improved livelihoods for its community members (it created 15 new jobs during the three-year study period) but also helped maintain its sustainable forest practices and protected its forest from encroachment and overexploitation.

## Pennsylvania: A Price Premium for Certified Sustainable Forestry

Similar results are evident in certified forestry operations around the world, including in the United States. Pennsylvania's state forests have been FSC/Rainforest Alliance Certified since 1998, which enables the state to sell its sustainably produced timber to downstream operations that have been FSC Chain-of-Custody (CoC) certified, thereby earning the state higher prices.

A 2008 analysis of timber sales data from 2001 to 2006 showed that certified timber from Pennsylvania's state forests that was sold to FSC-certified CoC buyers earned a total of \$7.7 million more than it would have if it had been sold to noncertified buyers—a price premium that effectively rewards Pennsylvania for its sustainable forest management.<sup>112</sup>

#### **Local Economic Development: Our Standards**

For certified operations to achieve long-term sustainability and economically viability, the commu-

nities and local economies in which they're embedded must achieve it, too. That's why our standards include practices that benefit local economic development, producing a ripple effect that works both ways. Sustainable businesses purchase local goods and services, hire locally, offer training and other outreach programs that contribute to local workforce development and promote prosperity in their local economies. The success of these communities creates a healthy economic environment that helps lift responsible businesses even higher.

Agriculture: Certified farms must collaborate with and contribute to local economic development through training, employment and procurement. The Sustainable Agriculture Network (SAN) standard requires that farms have policies and procedures in place for prioritizing the hiring and training of a local labor force and for contracting and acquiring local services and products. Certified farms also engage in community outreach activities.

Forestry: Forest owners and managers participate in local economic development and/or civic activities, based on the scale of the operation and where such opportunities are available. Where forest products are harvested, processed or sold, certified forests extend opportunities to local harvesters, value-added processing and manufacturing facilities, sales/service companies and other local operations that offer competitive rates and levels of service. Local community members are also given opportunities for employment, training and the provision of services through local advertising, suppliers lists, etc. Forestry work is offered in ways that create high-quality job opportunities for employees and build a skilled local workforce.

**Tourism:** Tourism businesses must have operating practices that promote local economic development. They purchase socially and/or environmentally friendly goods, giving preference to local suppliers that also follow sustainable practices, and hire locally when filling job positions and contracting needs. They must take concrete steps to educate local communities as well as their clients about sustainability, raising awareness and promoting participation in local sustainability projects.

#### **Local Economic Development: Our Impacts**

Beyond the competitive advantage and economic benefit that accrue to individual businesses that partner with us, the Rainforest Alliance's work also has far-reaching economic impacts on surrounding communities. In addition to directly supporting community development projects, sustainable businesses patronize local suppliers, create enduring local jobs, disseminate knowledge of best practices and offer training and other outreach programs that enhance workforce development and empower people. These kinds of changes reverberate throughout local economies.



#### Nicaragua: The Road to Recovery

In the wake of 2007's ecologically and economically devastating Hurricane Felix—which affected more than 25,000 impoverished families in Nicaragua's North Atlantic region and caused damage to homes, crops and more than 3.7 million acres (1.5 million hectares) of biodiverse tropical forests—the Rainforest Alliance began working with local communities to help rebuild businesses and stimulate economic recovery.

A key aspect of our work in post-hurricane Nicaragua has been salvaging fallen and damaged timber and promoting the natural regeneration of forests. Today, salvage operations are producing saleable commercial wood, and cash-strapped indigenous families are earning immediate income from the sale of this wood. Local businesses are also forestalling the risk of permanent forest loss from fire, pests and the conversion of the land to other uses.

Five years after the devastating storm, seven new forestry cooperatives have been established, and 30 communities, comprising a total of more than 2,000 people, have benefitted from our collaboration with them. The forestry businesses run by the cooperatives now operate with detailed sustainable management plans in place and have established alliances with domestic wood-product companies.

The Rainforest Alliance has also trained local communities in value-added processing and helped to facilitate the acquisition of small-scale carpentry equipment and a portable sawmill. Now, community members are employed in their own villages, producing pre-sawn boards made of mahogany and other high-demand hardwood species that command higher prices in the marketplace.

Economic Impacts

Hurricane Felix churns toward Nicaragua in this view from the International Space Station. photo courtesy of NASA

### **Economic Impacts**

Pennsylvania's state forests, including Bald Eagle State Forest, seen here, have been FSC/ Rainforest Alliance Certified since 1998. photo by Nicholas A. Tonelli



For example, the same COSA study that showed large productivity differences between certified and noncertified cocoa farms in Côte d'Ivoire (see page 45) also noted that those differences seemed to be narrowing slightly from year to year, indicating that noncertified farms were slowly "catching up" to certified farms. Several explanations for this shift exist, but one of the more interesting is "knowledge spillover" from certified farmers sharing information on best management practices with their noncertified neighbors, helping extend some of the benefits of certification to surrounding farms.

## Pennsylvania: Certified Forests Support Local Jobs and Industry

Even in developed countries, the wider impact of certified operations can be highly significant for local economies. A case in point is Pennsylvania's FSC/Rainforest Alliance Certified state forests (see page 48). In 2011, the state's forestry bureau contracted the harvesting of approximately 12,000 acres (4,850 hectares) of timber on state forestland, at a value of about \$26 million. The harvested timber supplied the raw materials for an estimated \$425 million in private-sector economic activity. In addition to protecting Pennsylvania's forests and meeting consumer demand for renewable wood products, the state's sustainable harvesting program helped support local jobs and industry.<sup>113</sup>

### Sustainable Tourism as an Engine of Local Development

Tourism is well know for attracting foreign exchange and generating economic development. Tourism dollars circulate to an array of local businesses, including suppliers and workers and their families. Tourism also generates tax revenue for host countries. Within the larger travel industry, sustainable tourism is one of the fastest-growing segments.

Though tourism's economic multiplier effects are complex and can be challenging to trace and quantify, a 2009 Rainforest Alliance study set out to do just that, following the trail of money spent by sustainable tourism clients in a particular region.<sup>114</sup> Focusing on five sustainable tourism businesses in Granada, a city in southwestern Nicaragua, researchers assessed the impact that those businesses had on the wider economy.

During the four-month study period (January to April 2009), Granada's five sustainable tourism businesses were visited by more than 7,000 tourists, whose impact on the economy was determined to be more than \$2.2 million. For each dollar that visitors spent at those five sustainable businesses, they spent another \$1.58 elsewhere in the city, touching virtually all sectors of Granada's economy and generating significant tax revenue.

#### Gender Equity in Sustainable Tourism Businesses in Granada, Nicaragua

women men

workforce 41% 59%

total pay 48% 52%

The study also showed that sustainable tourism created other economic benefits for Granada. For example, the businesses in the study sample provided well-paying, quality jobs whose salaries were on average 40 percent higher than those in Nicaragua's construction sector. Across the five businesses, 96 percent of the employees were local, and these workers earned 90 percent of the total salaries paid, money that stayed within Granada's economy. In addition, 34 percent of funds paid out to suppliers by the five businesses went to local companies.

Finally, these five businesses promoted gender equity. Across the companies, 59 percent of the

workers were men and 41 percent were women, but 52 percent of the total pay was earned by men and 48 percent by women, meaning that, on average, the women were paid slightly more. Such pay equity, empowerment and economic security among female workers represent a significant gain for the development of Granada's economy and workforce.

## Amazonian Tourist Lodge Brings Economic Benefits to the Indigenous Community

Though it might seem easier to achieve direct community impact in a more densely populated urban setting, the success story epitomized by the city of Granada has been repeated at rurally based Rainforest Alliance Verified tourism businesses.

Located deep in a jungle lagoon reserve in the Ecuadorian Amazon, the Jamu Lodge has worked closely with local indigenous people to deliver important economic benefits: arranging guided canoe excursions so that hotel guests can visit the indigenous community and learn about the culture; financing loans for community members to buy the canoes used to transport guests; and hiring local people as full-time, permanent employees.

#### Costa Rica: Development Impacts of Sustainable Tourism

Sustainable tourism enterprises can be powerful forces for economic development. Here are a few examples of the positive affects of Rainforest Alliance Verified tourism businesses in Costa Rica on local economies:

One travel agency located in San José, Aventuras Tierra Verde, hires locally, emphasizes extensive employee training and staff development, and includes local suppliers and community representatives in training sessions. The agency also developed a code of ethics that includes guidelines on community engagement, helped finance local housing for needy families and worked with the regional cultural center to clean up local rivers.

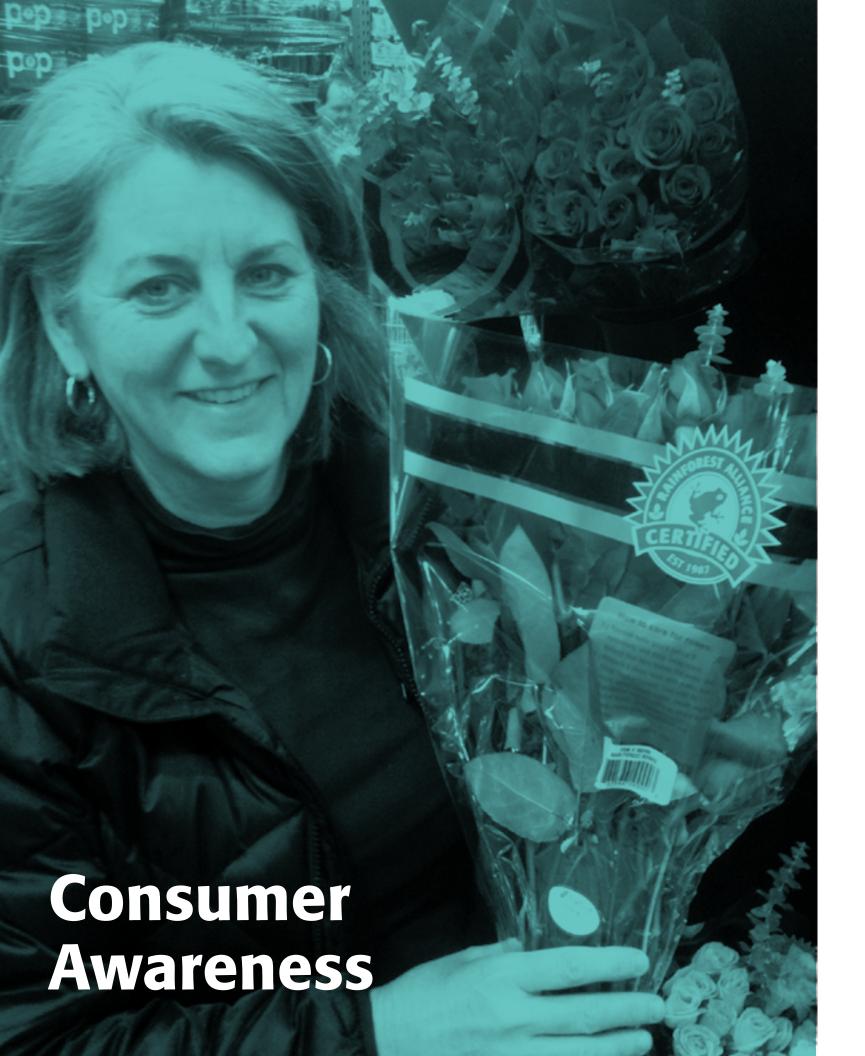
Located along the Sarapiquí River, the Chilamate Rainforest Eco-Retreat buys its food and supplies from area producers and encourages guests to visit the local community. These steps boost the local economy



and help attract tourists and students who volunteer in the town. The lodge participates in community projects and has helped organize and lead a development association that is working to improve local infrastructure, build a community center and serve local youth.

Following the recent global economic crisis, the Maquenque Eco-Lodge in Boca Tapada de Pital de San Carlos deliberately geared its operation to anchor local development and boost the local cattle ranching and farming industries. The lodge bought its food and supplies from local producers and retailers, created jobs for area residents in guest services and construction, developed the skills of its local workforce through training and community outreach, and encouraged foreign students to visit and perform volunteer work in the town.

Maquenque Eco-Lodge in Boca Tapada, Costa Rica, maintains an extensive vegetable garden and fruit orchard, which supply 70 percent of the lodge's produce. photo courtesy of Maquenque Eco-Lodge



#### A Growing Market of Conscious Consumers

hile we are extremely proud of the Rainforest Alliance's achievements on farms, in forests and among tourism businesses, we've always known that we must also gain the support of consumers if our work is to be truly sustainable.

The Rainforest Alliance Certified seal and Rainforest Alliance Verified mark, both of which bear our signature green frog, were developed with the express purpose of building the market for forest-friendly products and services. These trustmarks signal that a product or service has met rigorous environmental, social and economic standards, and the seals provide consumers with an easy, reliable tool for supporting the efforts of responsible businesses.

Our frog now appears on thousands of products around the world, thanks to our outreach efforts. Through our various websites, social networks, media coverage and ongoing collaborations with NGO partners and sustainable businesses, we have cultivated public awareness about the significance of the Rainforest Alliance frog stamp of approval on everyday goods, such as coffee, cocoa, tea, fruit, wood and paper, as well as of services such as Rainforest Alliance Verified tourism businesses. Consumers know that the frog stands for wildlife protection, clean water, dignified wages, safe working conditions, healthy communities and the

education of children. In short, consumers now understand the Rainforest Alliance frog as a symbol of sustainability, and our humble amphibian has helped build a powerful global community of conscientious consumers.

#### The Growth of a Green Ethic

#### In the United States:

- 84 percent of consumers have purchased sustainable food or drink in the past month. 115
- Even during a difficult economic downturn, 34 percent of consumers indicate that they are more likely to buy environmentally responsible products today, and another 44 percent indicate that their environmental shopping habits have not changed as a result of the recession.<sup>116</sup>
- 54 percent of shoppers interviewed consider sustainability to be one of their decision-making factors and are "leaning green."
- For most shoppers, sustainability considerations become the deciding factor when other factors are in relative parity. Because of this dynamic, sustainability characteristics drive a relatively high rate of product switching.<sup>118</sup>
- Researchers found that green shoppers are still on a learning curve. They do not always understand the social and environmental benefits of green-certified goods and services, and they need help at the point of purchase. In 2009, the rate of green purchasing was still

Rainforest Alliance Certified Allegro coffee on the shelves at a Whole Foods Market in Chicago. photo by Melissa Normann

**Previous page**A shopper holds

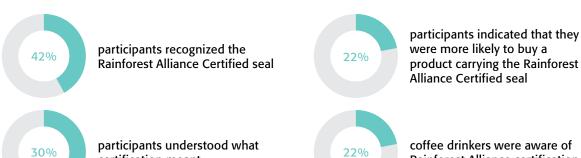
a bouquet of

Rainforest Alliance Certified roses.



#### Awareness of the Rainforest Alliance and Our Green Frog<sup>119</sup>

#### **United States**



### Canada

2010 2008



Germany

2011

France

coffee drinkers recognized the Rainforest Alliance Certified seal

certification meant

### Australia

27%

2009

2008

United Kingdom and Ireland

2009 2008



25%

consumer awareness of the Rainforest Alliance seal

consumers recognized the

Rainforest Alliance Certified seal

### Sweden, Denmark, Norway and Finland



39%

consumer awareness of the Rainforest Alliance seal

consumer awareness of the

Rainforest Alliance seal

**Rainforest Alliance certification** 

consumer awareness of the

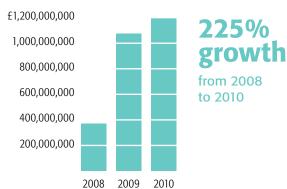
Rainforest Alliance seal

#### Taylors of Harrogate is just one of the brands offering Rainforest Alliance Certified tea in the United Kingdom.

54



**Sales of Rainforest Alliance Certified Food and Beverage Products in the United Kingdom** 



very sensitive to the use of in-store communication and information.<sup>120</sup>

#### Follow the Frog: The Rainforest Alliance, the Internet and Social Media

The Rainforest Alliance maintains an active online and social-media presence, using all of the most current and dynamic tools at our disposal to engage the public in our mission. Available in five languages, our main website, www.rainforest -alliance.org, received more than 1.6 million total visits from August 1, 2011, to August 1, 2012, including more than 1.2 million unique visitors and more than 5.3 million page views.

In 2010, we launched www.sustainabletrip.org to provide travelers with a comprehensive, credible listing of tourism destinations in Latin America and the Caribbean that benefit local communities, flora and fauna. The website currently features more than 300 hotels, tour operators and other travel businesses that are either verified by the Rainforest Alliance, certified by an approved thirdparty certification program or recommended by reputable organizations. Since its launch, the web-



#### **Consumer Awareness**

Tourists take a guided rafting trip down a river in Costa Rica.

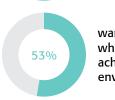
photo courtesy of Aventuras de Sarapiquí

#### The Rainforest Alliance and Sustainable Tourism<sup>121</sup>

2010 survey of approx. 4,000 travelers from Belgium, France, Germany, the Netherlands, Russia, Sweden, the United Kingdom and the United States



prepared to make small changes in their behavior while on holiday if it helped the environment



wanted to be given facts about what their travel company had achieved in terms of reducing its environmental impact



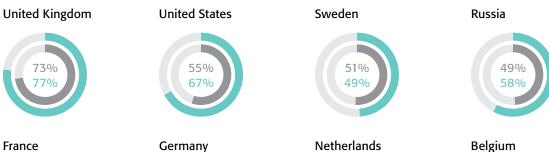
wanted to know whether the company they were traveling with worked to reduce its environmental impact



said they had a better image of travel companies that actively invest in environmental/social initiatives

respondents who had seen the Rainforest Alliance label in the tourism sector

respondents who considered the Rainforest Alliance label to be "trustworthy" or "very trustworthy"





site has generated approximately 13,000 leads for these sustainable businesses.<sup>122</sup>

We also interact with people all over the world via a variety of social-networking tools, both general and targeted in theme, with the latter focusing on topics such as coffee, travel, rainforest photography and specific geographic regions. To date, we have nearly 100,000 Facebook and 32,000 Twitter followers. 123

In September 2011, we held our first annual Rainforest Alliance Week, a social-media campaign designed to encourage consumers to "Follow the Frog," shop for Rainforest Alliance Certified products and spread the word about conservation and our work. A new video produced for the campaign received 6,000 views, and the weeklong event garnered 2,500 new Facebook fans (more than 1,000 percent growth over the previous week) and more than 710,000 Twitter impressions.

#### What Consumers Are Saying

Social-media engagement provides insight into public perceptions regarding sustainability in general and the Rainforest Alliance in particular. Below is a selection of responses to our Facebook post, "I drink sustainable coffee because . . ."

"There are so few things that the individual can do to influence the world with day-to-day activities. I love coffee and the commitment to Rainforest Alliance Certified coffees is one small way that I can make a small contribution every day."

– David Perednia

"Besides the fact that it is usually better tasting, I enjoy drinking sustainable coffees because it is important to me that growers are given a living wage and the environment is preserved. Rainforest Alliance coffees epitomize what striving for balance in nature can achieve."

– Martin Kerns

"It's better for me, better for the earth, and better for every living thing on the planet!... Everybody wins! Follow the Frog!"

– Robin O'Sullivan

"I drink sustainable coffee because it's something I can do to ensure responsible treatment of the land and the people who cultivate it. I can make choices in what I purchase to support companies that have made commitments to sustainability and I am willing to spend a little more to get that huge benefit. I believe change can begin with me."

- Cynthia from Ohio



**Consumer Awareness** 

This composite image shows only a handful of the hundreds of products that bear the Rainforest Alliance Certified Seal. photo by J. Henry Fair

The Rainforest Alliance Certified Seal is featured prominently on a sack of coffee beans. photo by Alessandro Dona

57





### and Education

Previous page First grader Taylor Griffith works on an assignment during a lesson about the rainforest at Henry F. Kite Elementary School in Jacksonville, Florida. photo by David

Dudenhoefer

Fourth graders from Jacksonville's Susie E. Tolbert Elementary School collect garbage from the banks of the St. Johns River. photo by David Dudenhoefer

#### **Cultivating the Next Generation**

In 1987, the Rainforest Alliance was created to help plan and stage the first major international **L** conference on rainforests, an event designed to raise awareness and put an end to forest destruction. Since those early days, we've expanded our educational efforts considerably, working to facilitate information-sharing and communications among conservation groups as well as teaching and inspiring the world's children to engage with the environment and their own communities.

**Empowering Conservation and Sustainable Development Projects through Information-Sharing** 

Our Eco-Index website, www.eco-index.org, was launched in 2001 to provide the conservation community with an easily accessible vehicle for sharing project data, reports, lessons learned and best practices. The website covers the work of more than 900 NGOs, government agencies and research institutions, and it features profiles of more than 1,250 biodiversity-conservation and sustainabledevelopment projects in North, Central and South America, and the Caribbean. 124

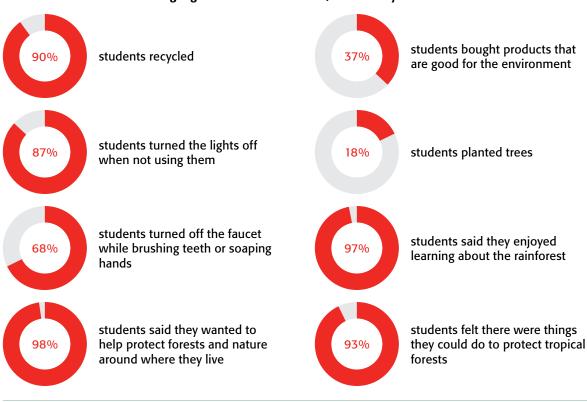
The entire site is available in English and Spanish, and profiles of Brazilian projects are in Portuguese. The Eco-Index receives an average of 50,000 visits per month. According to an April 2011 survey of site users, 85 percent of respondents said they had learned about projects related to their own work, and 59 percent had used information about another project to modify their own.

Shaping a New Generation of Conservationists

In 2003, the Rainforest Alliance launched its award-winning, bilingual, web-based Learning Site, which features free, hands-on educational resources for teachers and students. We developed multidisciplinary curricula for grades pre-K through 8 that meet national learning standards for science, math and language-arts skills and help children in the United States understand how their lives are connected to faraway forests and cultures.

In 2007, we expanded our education work to Guatemala's Petén region, where we provide teachers with hands-on training in environmental education. And we've helped students in that biodiversity-rich region appreciate the flora and fauna that surround them, motivating them to take action to protect their valuable natural resources. Our education program is also at work in Colombia and Ghana.

#### **Environmental Actions Among Eighth Graders in Newark, New Jersey**



#### Some additional highlights:

- The Rainforest Alliance's Learning Site has received more than 14.6 million page views and download requests from educators and students around the world.
- We've directly trained 1,740 teachers, reaching more than 30,000 students in Colombia, Ghana, Guatemala and the United States.
- We've partnered with more than 100 schools worldwide to implement our multidisciplinary curricula.

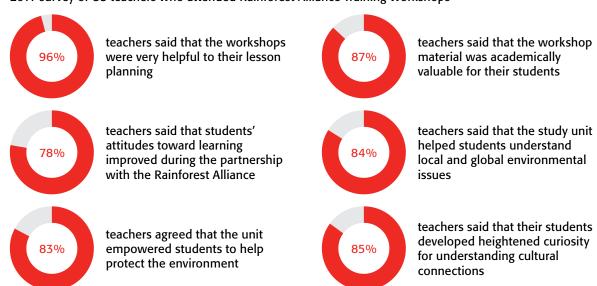
- More than 770 teachers in Guatemala's Petén region have had Rainforest Alliance training.
- Our network of teachers stay connected and share stories, updates and resources on a dedicated Rainforest Alliance Facebook page.

#### What Students Are Saying

In a 2011 survey of eighth graders from Newark, New Jersey, who have been taught our curriculum, 90 percent said they've taken action to help improve their environment (see chart above).

#### **Effectiveness of Rainforest Alliance Training Workshops Among Teachers**

2011 survey of US teachers who attended Rainforest Alliance Training Workshops





#### Guatemala: Teacher Training in Guatemala's Maya Biosphere Reserve

A remote wilderness located within Guatemala's Petén region, the Maya Biosphere Reserve (MBR) is a haven for endangered jaguars, howler monkeys and scarlet macaws, but it is also a magnet for ranchers, farmers and loggers who flock there to carve out a living from the abundant land and timber. To help local communities earn a decent livelihood while still protecting the reserve's natural resources, the Rainforest Alliance has been teaching residents how to sustainably harvest timber, palm fronds, nuts and chiclé (a sap used in chewing gum).

In 2007, we introduced our comprehensive conservation curriculum to schools in the MBR, with the aim of helping teachers and students learn about the their region's spectac-

ular biodiversity, the role that trees play in regulating the global climate and the variety of ways local people can protect their own forests. Through teacher workshops, we have provided hands-on training in environmental education, lesson plans and activities. Participants have also received facilitator training to learn how to pass our curriculum on to other teachers in the region. Graduates of the program remain connected to the program and each other via online resources and a dedicated Facebook page.

To date, 100 teachers have completed the workshops and an additional 674 have been trained by their peers. "The workshops have increased my knowledge of the region's geography," said Osmar Monzón, a fourth-grade teacher based in the Ixlú community, "and they've provided me with new, effective ways to engage children in [conservation] issues."

As a result of our efforts, area students have created more than

20 different environmental action plans, including radio broadcasts, art exchanges with schools in the United States and other projects. Some schools built tree nurseries and planted more than 1,000 trees to help stabilize the soil and provide fruit and nuts for extra food and income. Other schools organized river clean-ups and are teaching their communities about the detrimental effects of garbage on aquatic life. And students in the community of Uaxactún created educational posters and led their parents and classmates on fire-prevention walks.

and Education

Students in the

Reserve are learning about biodiversity and climate change through a variety of Rainforest

Maya Biosphere

Alliance-designed

exercises, including measuring trees to calculate the amount of carbon they store.

Perhaps even more important than any specific action taken is the shift in attitudes that our work has helped to cultivate. "I see some kids telling others to clean up waste when they have littered," says Monzón. "A few years ago, this would never have happened."

"Our partnership with the Rainforest Alliance has helped transform our school building into a discovery zone for students and helped our teachers design lessons that sparked curiosity and expanded the world of learning globally."

> – Peggy Wyns-Madison Principal, PS 15/Patrick F. Daley School Brooklyn, New York

"It's an excellent program. It provides teachers with innovative educational strategies and techniques, and it's raised their awareness of the importance of managing our natural resources sustainably."

 Gloria Llanira Catalán Puga Regional Director of Education Petén, Guatemala



#### Conclusion

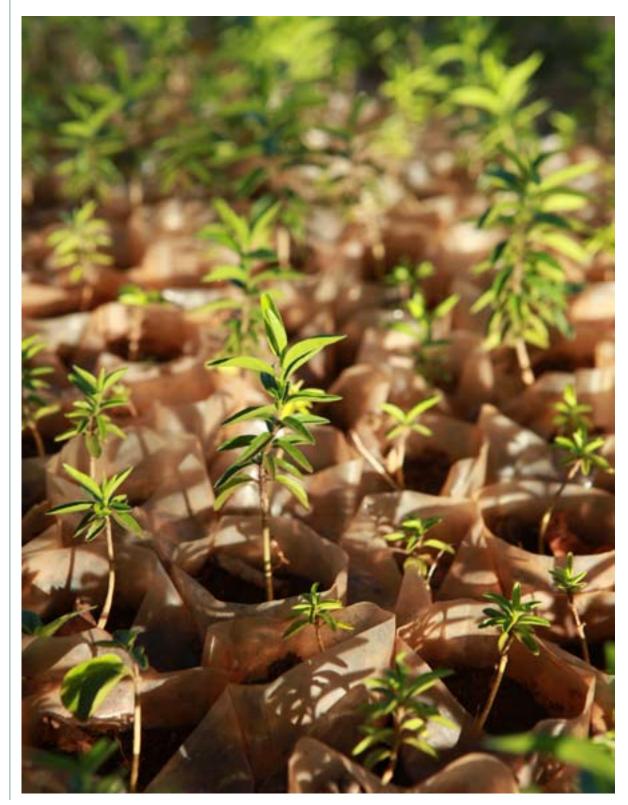
Previous spread
A pine forest in the Mexican state
of Puebla.
photo by
Eugenio
Fernández
Vázquez

Native trees are raised in a nursery for future planting in the buffer zones of the Kericho Tea Estate in Kenya. photo by Caroline Irby

#### **Our Accomplishments, Our Allies**

hile all of us on staff are justifiably proud of the Rainforest Alliance's accomplishments, we know that we cannot take sole credit for the work that is highlighted in this report. As an organization, we act primarily as a catalyst, and as our name indicates, we rely on allies in every corner of the world to help achieve the mission that is so critical to our shared future.

Over the past 25 years, we have worked with many stellar partners, including nonprofit advocates, farmers, loggers, tourism entrepreneurs, community leaders, SAN members, government representatives, scientists and opinion leaders. Through our collective efforts and dedication, we have been able to transform the world. We are humbled and honored to be part of something so much bigger than ourselves, and we look forward to another 25 years of collaboration and achievement.





"Rainforest Alliance certification is absolutely necessary. It is the right way to improve our relationship with nature and with our fellow man. Behind all these criteria, which I now know by heart, is this central point: If we don't protect nature, we will destroy ourselves."

 Alvaro Reyes
 Nicaraguan coffee farmer and President of the Specialty Coffee Association of Nicaragua

"While I was fully prepared to examine the advantages of tourism for the people of tourist destinations, I inadvertently experienced the potential benefits for tourists that go hand in hand with interacting directly with local communities."

 Rachel Stine freelance journalist United States and United Kingdom

"As a mother, it has improved the well-being of my children. Before we joined this program, there was a lot of pollution, and we dumped all the waste into the streams. Today, everything has changed. We are improving on all levels."

– Leticia Monzon, Rainforest Alliance Certified farm owner northern Guatemala

"The Rainforest Alliance is a tremendous resource as we seek paper suppliers that share our commitments to producing sustainable paper-based products, conserving and protecting forests and supporting local communities."

Mark Buckley
 Vice President of Environmental Affairs, Staples
 United States

"Organizations like the Rainforest Alliance are sort of saying, "Look you know humans live in these forests, humans can be the best defense of the forests if they value them, so let's work with the people there.' The people are part of the system."

- Andrew C. Revkin science and environmental opinion writer The New York Times "The Rainforest Alliance has been helping us to market our xate [palm leaves] in the United States, which has been of great benefit to the community. They have also helped a lot with education . . . For us, the Rainforest Alliance is something that has come here and worked for our benefit. And not just for us, for many other communities too."

– Neria Herrera manager and xate worker Guatemala

"Since I began participating in Rainforest Alliance training sessions, my cocoa yield has been steadily improving ... most women in the program here could say the same thing. I used to feel intimidated among my fellow women farmers, but after some time in this program, that inferiority complex has vanished. Today, I can even speak boldly in the presence of men."

– Vida Tsatso Boaful cocoa farmer Ghana

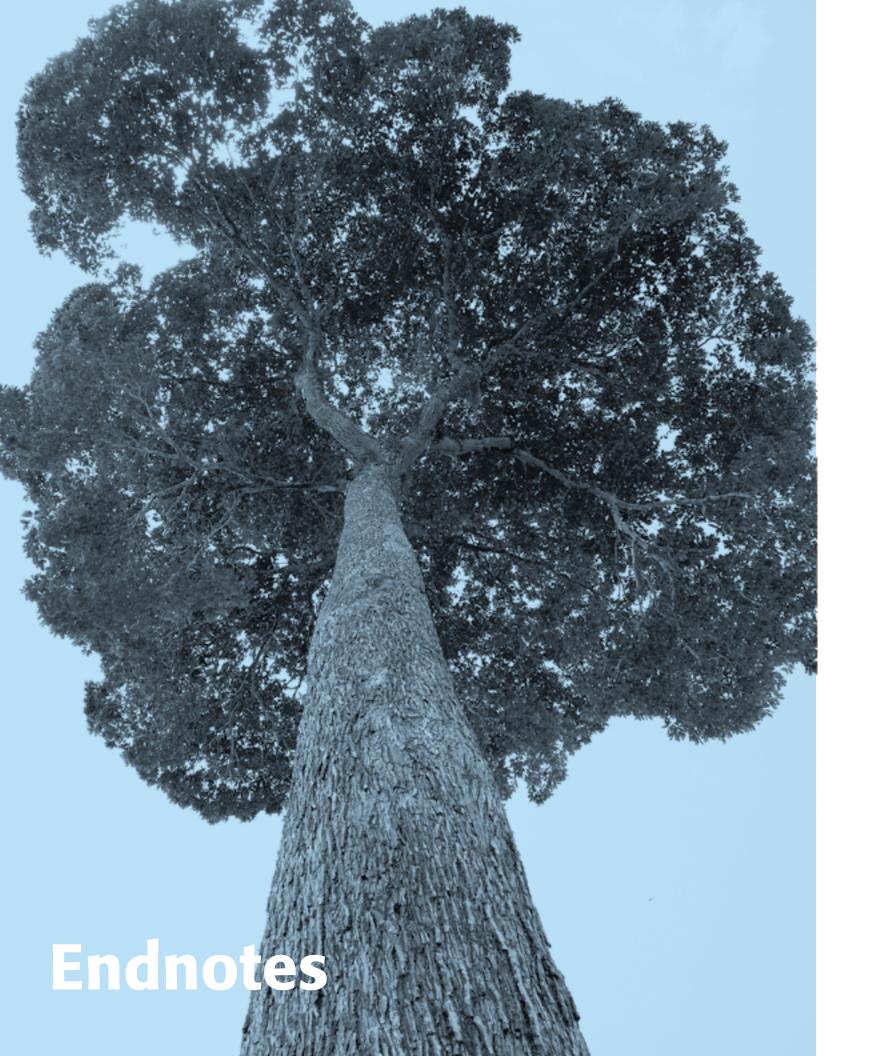
"The most rewarding part of the whole process has been working alongside the producers to see and really understand the impact Rainforest Alliance certification has on their livelihoods, lands and communities. I am so grateful that Caribou Coffee embraced and prioritized responsibility in our supply chain with such foresight all those years ago."

Chad Trewick
 Director of Coffee and Tea, Caribou Coffee
 United States

"As noted environmentalist David Orr said, sustainability is about how to make decent communities in which people grow to be responsible citizens and whole people . . . It is our responsibility to act, as a business and as employees representing this business, in the most responsible way possible—toward our fellow community members, toward our environment and to those who come from other places to spend time with us."

– Quint Newcomer & Fabricio Camacho Ecolodge San Luis Costa Rica **Conclusion** 

Coffee cherries are most commonly a brilliant red, like these, but some also grow in shades of yellow or purple.





#### Letter from the President and Board Chair

 $1\,MongaBay.com, http://rainforests.mongabay.com/amazon/deforestation\_calculations.html.$ 

**2** As of June 30, 2012.

**3** As of June 30, 2012. Includes Forestry Stewardship Council-Forest Management, Chain of Custody & Controlled Wood certifications.

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18 When we say "our standards," we are using shorthand to refer to the various criteria associated with the Rainforest Alliance Certified and Rainforest Alliance Verified programs. In the case of agriculture, the standard was developed and is managed by the Sustainable Agriculture Network (SAN), of which the Rainforest Alliance is a member and secretariat. In forestry, the scheme owner and manager is the Forest Stewardship Council (FSC), which the Rainforest Alliance helped to found in 1993. As an FSC certifier, we develop regional standards, which represent local indicators that are evaluated in the field and are based on FSC Global Principles and Criteria. In tourism, the verification standard is managed by the Rainforest Alliance and recognized by the Global Sustainable  $\,$ Tourism Council. In this report, "our standards" refers to the fol $lowing\ specific\ documents: (1)\ Agriculture: \textit{Sustainable Agriculture}$ Network (SAN) Sustainable Agriculture Standard (July 2010, version 2); (2) Forestry: Forest Stewardship Council (FSC) International Standard (FSC-STD-01-001, version 4-0, EN), FSC-endorsed national Forest

#### **Endnotes**

Previous page A massive Brazil nut tree towers over its surroundings in Peru. photo by David Dudenhoefer

Left
A tea plucker
bows in greeting
on a tea estate
near Coonoor,
India.
photo by
Charlie Watson

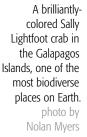
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ndnotes

Freshly-picked cocoa pods await opening in Honduras. photo by Charlie Watson

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59 Most farms, forestry operations and tourism enterprises reported their number of workers. We used a linear model to estimate the number of workers on farms and forestry operations with missing data. For tourism enterprises, our estimate for missing data was based on a per-enterprise average number of workers.

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A young girl plays on the beach in Ecuador. photo by Lucia Burneo



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a. No technically or economically viable alternatives do exist for the type of pest or infestation  $\dots$ 

b. The pest or infestation has had, or would have had, proven significant economic consequences that surpass the economic threshold for damage.

c. Measures must be taken to substitute WHO Class IA, IB and II technical grade active ingredients of pesticides.

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Conifers reach for the sky in a forest in Washington state. photo by

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Dawn breaks over Guatemala's Lake Atitlán, the deepest lake in Central America. photo by Charlie Watson





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Rainforest Alliance President Tensie Whelan and tea farmer Gabriel Samoei outside the Totor Tea Factory in Kenya.

Inside cover
Ferns unfurl their
fronds in the
woodlands of
Ohio.
photo by
Bill Currier

Back cover A Bangladeshi man paddles his boat as the sun sets over the River Padma. photo by Bir Azam

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