



# Monitoring Progress of the Environmental Cooperation Agenda

## Special Edition



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American States | More rights  
for more people



# CAFTA-DR

United Protecting the Environment







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# What is the CAFTA-DR Environmental Cooperation Program?



The **Environment Affairs Council**, comprised of representatives of the Parties at the ministerial level or equivalent, meets at least once a year and guides the implementation of the Environmental Cooperation Program.



The Environmental Cooperation Program is the result of the commitment of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua and the United States to “cooperate to protect, improve and conserve the environment, including natural resources” upon signing the Environmental Cooperation Agreement in February 18th, 2005— as a side accord to the Central America-Dominican Republic-United States Free Trade Agreement (CAFTA-DR).

The Environmental Cooperation Program has been implemented in order for countries to:

- ensure that environmental laws and policies encourage high levels of environmental protection
- effectively enforce environmental laws
- ensure that judicial and administrative proceedings are available to sanction or remedy violations of environmental laws
- improve protection and conservation of the environment, including natural resources
- promote transparency and public participation in environmental decision-making

In **10 years** and more than US\$ 89 million invested to protect the environment through the **CAFTA-DR Environmental Cooperation Program**, results are tangible and success stories abound...

- More than **20 million** people reached through environmental awareness campaigns
- **150 laws** and regulations were improved; **28 new laws** were adopted; **32 policies, laws, agreements or regulations** were implemented that promoted sustainable natural resource management.
- Over **120,000** people trained in environmental policy and enforcement
- **8,800** animals saved through the rescue centers
- **1.3 million** hectares of land protected
- **714** micro, small and medium enterprises supported in cleaner production activities

➤ First meeting of the Environmental Affairs Council in Guatemala – May 2006





# Who are the people of CAFTA-DR?

## ■ National Institutions

National institutions are engaged in the management and **oversight of their commitments** within the Environmental Cooperation Agreement. They assist in the management of the environmental cooperation at a national level, in coordination with other actors such as ministries, universities, cleaner production centers, and local businesses.

## ■ CAFTA-DR Points of Contact

The CAFTA-DR Points of Contact play a vital role in **assuring the success of environmental cooperation**. Designated by the ministries or departments responsible for cooperation, they are the “glue” of Program coordination. They receive and transmit information to and from their governments, other Points of Contact and implementing agencies, contractors and NGOs.



## ■ Environmental Affairs Council:

Cabinet-level or equivalent representatives of the Parties, or their designees responsible for environmental affairs in CAFTA-DR.

## ■ The OAS

The General Secretariat of the OAS through its Department of Sustainable Development, assists the CAFTA-DR countries in evaluating if and how cooperative activities funded under the Environmental Cooperation Agreement are contributing to the achievement of their long-term goals.

## ■ Secretariat for Environmental Matters

The Secretariat for Environmental Matters was created to provide support to the procedural mechanism process by which members of the public can make submissions asserting that a Party is failing **to effectively enforce its environmental laws**. The Secretariat operates under the direction and supervision of the Environmental Affairs Council. The Secretariat activities **help promote compliance of environmental laws and public participation**. For more information visit: <http://www.saa-sem.org/index.php?lang=us>

## ■ Implementing Agencies

Implementers are agencies, contractors, non-government organizations that plan and carry out activities to reach the objectives of the Environmental Cooperation Program. They provide training and other capacity building initiatives at the heart of the Program, perform essential assessments and analyses, build linkages between governments and civil society and conduct outreach and education programs for the public.



# How do we measure progress and results?

The Department of Sustainable Development of the Organization of American States prepares independent evaluation reports, using a **Results-Based Management** approach, to provide a general overview of the CAFTA-DR Environmental Cooperation Program, including **success stories, case studies, challenges and recommendations** witnessed from the beginning of the implementation of the Program, with a view to improve future environmental cooperation programming.



The Evaluation Reports are available at: <http://www.oas.org/en/sedi/dsd/ELPG/aboutELPG/monitoringProcess.asp>

## Celebrating 10 years united protecting the environment!

The year 2016 marks the 10<sup>th</sup> Anniversary of the Environmental Cooperation Program; this provides an occasion for reflecting and building on the successes of the Program and highlighting how a complimentary agenda of a trade agreement can advance environmental sustainability.



**CAFTA-DR**  
United Protecting the Environment







# Environmental Governance



*“Our work dynamic has completely changed for the best. We have gained significant time savings as we don’t have to scan anymore and verify everything with cartography. The struggle in consulting free software available online and dealing with its limitations is over. Everything now is in one single place.”* — *Technicians, Single Entry Unit (Ventanilla Unica), Ministry of Environment and Natural Resources*

*“The strength of these [NE-PAssist data with the EIA tracking] systems lies in the reliability and accuracy of information that can be accessed in real time by users.”* — *Abraham Rodríguez, Technician, Single Entry Unit (Ventanilla Unica), Ministry of Environment and Natural Resources*

*“We are very happy with how the system is working and the time savings that have been accomplished.”* — *Roberto Herrera, President, National Network of Corporate Support for Environmental Protection*



Several interventions have taken place in the last 10 years under the CAFTA-DR Environmental Cooperation Program with the goal to **strengthen institutions for the effective compliance and enforcement of environmental legislation.**

## We want a region with ...

Strong environmental legislation, regulations and policies



Strong government institutions' capacities for enforcement and compliance of environmental legislation



Active public participation for environmental decision making



**HELVETAS**  
Swiss Intercooperation

GUATEMALA

## Key partners:

The U.S. Environmental Protection Agency (**EPA**), the United States Agency for International Development (**USAID**)'s Environmental and Labor Excellence Program (**ELE**) and the Central American Commission for Environment and Development (**CCAD**) have worked closely to improve the capacity of countries to effectively enforce environmental laws; to assist the private sector in complying with environmental obligations; and to increase public access to environmental data and information in CAFTA-DR countries.

**Helvetas**, in collaboration with the U.S. Department of State and other key actors, have administered a small grants program (no more than US\$50,000) to non-governmental organizations, with projects heavily focusing on public participation.



# How is the CAFTA-DR strengthening environmental legislation, regulations and policies?

...By addressing countries priorities in the following areas:

- 
- Environmental Impact assessments and Audits
  - Wastewater management
  - Solid waste management
  - Management of chemicals and hazardous substances
  - Air quality management
  - Administrative procedures for the presentation of environmental complaints
  - Enforcement and compliance of civil/penal laws in environmental responsibility

## UNITED PROTECTING THE ENVIRONMENT!

...tracking progress of the CAFTA-DR Environmental Cooperation Program

- **150 laws** and regulations were improved; **28 new laws** were adopted; **32 policies, laws, agreements** or **regulations** were implemented that promoted sustainable natural resource management.
- Over **120,000 people** have been trained in environmental policy and enforcement.
- More than **20 million people** have been reached through campaigns and outreach material on public participation mechanisms and environmental information.



# Strong environmental legislation, regulations and policies

**Environmental Impact Assessment (EIA)** is a decision-making process informed by an assessment of potential environmental, economic and social impacts on the human and natural environments and their reasonable and feasible alternatives. Capacity to review and evaluate EIAs is essential to provide a level playing field for free trade.

## Environmental impact assessments

**210 policies, laws, agreements or regulations** promoting sustainable natural resource management and conservation have been refined, developed and/or implemented as a result of the environmental cooperation (150 laws and regulations were improved; 28 new laws were adopted; 32 policies, laws, agreements or regulations were implemented).

**6** new and/or improved **procedures for EIA** review and environment permits (1 for each country).

Whether utilizing a **tracking system**, a **GIS-based analytical tool**, and/or **auditing unit**, every country in the CAFTA-DR region has implemented an improved procedure for EIA review. Also, four countries (Nicaragua, Dominican Republic, Costa Rica and El Salvador) are using the NEPAssist GIS-based analytical tool.



### Box 1. Capacity Building Activities to Prepare and Review EIAs

The CAFTA-DR Environmental Cooperation Program helped in the development of the course “Principles of EIA Review,” and it was implemented in the CAFTA-DR region. The aim of this course was to create a pool of trained consultants and form an official registry of EIA technical consultants. This standardizes, to the extent possible, the process for EIA reviews in the region and institutionalizes EIA training to ensure its continuity beyond the life of the Environmental Cooperation Program implementation. In addition, a three-day training of trainers course was offered, to create a database of facilitators for future EIA course offerings. For example, in the Dominican Republic, NEPAssist, a GIS-based analytical tool, which is a web mapping application for EIA that helps increase the capacity of the ministries to efficiently access, integrate and analyze environmental, social and economic information, has been integrated within an already existing internet-based EIA tracking system. The combination of these two tools has given the country a robust instrument that responds to all the requirements of the existing legislation, making the review process more transparent, efficient and expeditious, as well as allowing for effective accountability in the granting of permits. The review process at the same time has been simplified, requiring a single team-based review session, and has improved the availability and quality of information for project proponents and civil society. Furthermore, coupling the tracking system with the NEPAssist, has allowed easier identification of projects through geospatial mapping and visualization of actual satellite imagery. This in turn has facilitated the screening of information to confirm the veracity and completeness of applications and EIA documents and setting priorities for review, inspection and enforcement. If the public or local officials observe construction at a site, they can check as to whether it has EIA approval, helping to monitor compliance with EIA requirements and promoting transparency. It also enables EIA review staff to quickly identify whether a project may raise issues with protected areas or flood zones, as well as in general assess the environmental and social impacts of development projects. The implementation of both systems is a great achievement for the DR, as it quickly put information at the hands of individuals making environmental management decisions.

*Sources: USAID Final Report 2009-2011/OAS 3rd Evaluation Report*

**Three technical guides** were prepared to support the revision of EIA in the metallic and non-metallic mining, energy and tourism sectors.

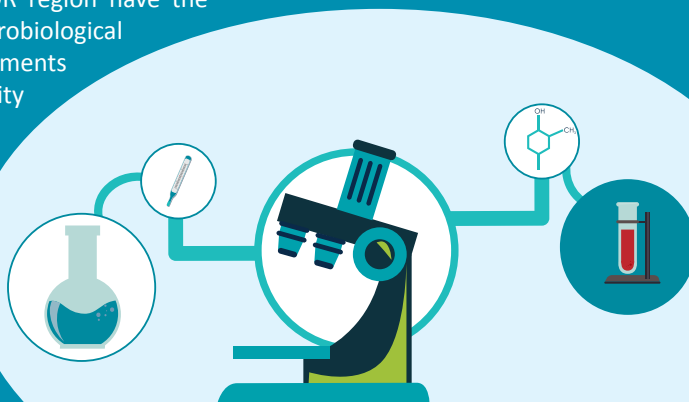
**Wastewater** management has been a priority for the CAFTA-DR countries and a key benchmark for environmental monitoring in the region. Even though the region has a wealth of water resources, the high levels of pollution in its rivers and lakes due to inadequate environmental controls constitute a serious challenge. The Environmental Cooperation Program is helping reverse this situation through the activities being implemented, including reference laboratories, as well as a greater implementation of performance standard methodologies and regulations in wastewater management.

## Reference Laboratories

- Environmental Pollution Research Center's Water Quality Lab at the University of Costa Rica (CICA/UCR) - REGIONAL REFERENCE LAB
- National Administration of Aqueducts and Sewers Laboratory of El Salvador (ANDA) - NATIONAL REFERENCE LAB
- National Health Laboratory of Guatemala - NATIONAL REFERENCE LAB
- National University's Aquatic Resources Research Center of Nicaragua - (CIRA/UNAN) NATIONAL REFERENCE LAB
- Aqueducts and Sewers Institute of Costa Rica (AyA) - NATIONAL REFERENCE LAB

### Box 2. The Development of Reference Laboratories

An audit process showed that each country had shortages in different areas, such as: sampling, traceability, custody of the process chain and comparisons between laboratories. Based on these evaluations, the institutional capacity of the laboratories was strengthened, in order to achieve the ISO 17025:2005 certification. Currently four countries (El Salvador, Guatemala, Nicaragua and Costa Rica) in the CAFTA-DR region have the ability to analyze physical/chemical and microbiological samples according to quality control requirements as set forth in ISO/IEC 17025 (a quality control system, technically competent and capable of generating technically valid results) and are capable of producing dependable results. Environmental laboratories in Honduras and in the Dominican Republic are continuing to work towards the establishment of a **quality control system as recognized within the ISO 17025:2005 framework**. These achievements have helped to reduce confusion over jurisdiction that has previously led to a lack of enforcement of **environmental regulations**.





## Solid waste management

4 countries with a **policy/strategy** for solid waste management (e.g., proposals for laws, regulations, policies, strategies and action plans for the sound management of solid waste).

- **Costa Rica:** Law for Integrated Solid Waste Management approved
- **El Salvador:** National Solid Waste Policy being updated
- **Guatemala:** National Regulation of the law on solid waste management; 1 regional policy/strategy of integrated solid waste management
- **Nicaragua:** 2 in process: updating of the national policy for solid waste management and elaboration of technical norms in solid waste



Community project in the district San Sebastian, San José, Costa Rica: environmental leaders, the Ecopoint (recycling materials gathering point), and mural. Overall, six Ecopoints have been established in San José.

## Chemicals and hazardous substances management

**30+** institutions have had **training** in emergency management of spilled **harmful substances**.

## Air quality management

**2** countries (El Salvador and Costa Rica) have **real time (daily) monitoring capacity** of air quality

CAFTA-DR countries received technical assistance in the **strengthening of their air monitoring technical capacities** which will enable them to obtain the information needed to develop long-term strategies that address mobile and stationary sources of air pollution and help build the region's capacity to establish a regional air monitoring network. Program partners were supported to **refurbish PM10 equipment for air quality monitoring stations** in Nicaragua, Dominican Republic, Costa Rica and Honduras. This has effectively allowed for the monitoring of PM10 and ensured that air quality data collected in major urban areas is representative and accurate, which will improve air monitoring across the region.

## Administrative procedures for the presentation of environmental complaints

**6** countries implement a **system of follow-up and control** of environmental complaints.

In all countries, the number of reported environmental complaints has increased.



## Case Study 1. Increased Attention to Environmental Complaints

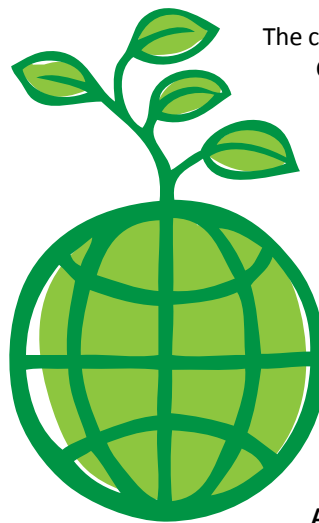
Thanks to CAFTA-DR Environmental Cooperation Program, an environmental complaints system was developed to control and monitor environmental complaints in the countries. This software presents a vital tool for increasing the transparency of environmental cases in the CAFTA-DR region, as well as effectively engaging the general public, civil society and public sector in understanding environmental obligations under existing legislation. This tool will significantly bolster the capacity of corresponding environment ministries in managing a complaints system, as well as engaging the public in environmental regulation and governance. In Guatemala, the system for monitoring environmental complaints has led to the successful resolution of several cases. The system has enhanced the office's capacity to follow up on pending cases and promoted the enforcement of the environmental laws. This is reflected in the increased collections from sanctions from January to June 2009 (GTQ 87,512.74 or approximately US\$ 10,500.00) that doubled the collections in 2008 (GTQ 48,569.37 or approximately US\$ 5,827.48). In El Salvador, with support from the CAFTA-DR Environmental Cooperation, the environmental complaints system has been strengthened and has received computer equipment, furniture and communications equipment, while in the whole country newspaper and radio ads were placed, and posters were affixed in regional offices, along with banners and bulletins with information on the system. Before the implementation of CAFTA-DR Environmental Cooperation, El Salvador had an archaic system on paper, but now a software has been developed through which the entire complaint system is digitalized.

*Source: U.S. Agency for International Development (www.usaid.gov), Interviews with POCs and other government officials in Guatemala and El Salvador, Second Evaluation Report.*



### Civil/penal laws in environmental responsibility

Through adequate training and education provided in the framework of the environmental cooperation, **judicial authorities are now more capable of addressing legislation on environmental responsibility.** Several courses have been implemented in each CAFTA-DR country, and universities and legal education institution now recognize the importance of the newly development environmental law curricula. Moreover, 24 compendia and manuals have been developed.



The concept of "**Green Customs**" aims to build capacity among the authorities responsible for the development of principles, requirements, programs and processes for **compliance with Multilateral Environmental Agreements (e.g., CITES, Montreal Protocol, Basel Convention)**, both for imports and export that are widely promoted today by free trade.

## Public institutions with stronger capacity are more accountable



### Box 3. Public institutions have stronger capacity to enforce environmental legislation and preservation and to ensure effective stakeholder compliance

Justice administration and regulatory frameworks for environmental law appeared to improve throughout the region as a result of courses and workshops, legal compendiums and manuals, and efforts regarding the adoption of model regulations and laws governing wastewater, solid waste, and hazardous waste treatment. Numerous training sessions and workshops have been undertaken with institutions and officers responsible for environmental law and enforcement, illegal trade policing for exotic species, violation investigation, and offender prosecution and sentencing. Prosecutors and judges are now better prepared to prosecute or adjudicate cases against environmental criminals. Legal compendiums and manuals have been an important step towards the harmonization of legal actions in the investigation, prosecution and sentencing of environmental crimes, to more effectively enforce environmental legislation in the region. Also, the role of universities is key in the area of knowledge sustainability. Currently, there are 31 universities in four countries that have signed a memorandum of understanding with the CAFTA-DR Environmental Cooperation Program, whereby they confirmed their commitment to replicate the environmental penal law course, as an independent course and at the “certification” level, with a possibility of offering a masters degree in the future, or being part of the law career.



**57,300 + individuals trained** within public institutions in institutional strengthening for effective compliance and enforcement of environmental legislation and preservation

The environmental cooperation has helped countries better meet environmental obligations of the CAFTA DR agreement by providing **training and workshops** to government officials, private sector delegates and CSO representatives from the environment, agriculture, health, academic and industrial sectors. Training participants are now more knowledgeable in effective application of, and compliance with, environmental legislation.

### Box 4. Establishment and protection of no fishing zones

CAFTA-DR interventions helped developed a range of marine protection services that include professional, self-sustaining marine conservation enforcement bodies capable of effectively enforcing conservation laws within fisheries, and prosecuting fishery violations. The project “Support to the Process for Fisheries’ Regulation in the Central American Isthmus” included a regional plan for inspecting infrastructure for processing; support for the regional action plan for sharks; a Monitoring, Control and Surveillance Network (Red MCV) and regional coordination; an Early Warning and Detection Plan for the Diablo Fish in Lago Cocibolca (Nicaragua); and Regulation of the General Law to Manage and Promote Fisheries and Aquaculture in the CAFTA-DR countries





## Environmental practices applied in the mining sector:

- **Capacity** was built through hands-on joint field inspections of mine sites, tailored training for government mine inspectors, specialized equipment donation, private sector partnerships, and follow-up web-based learning opportunities.
- Technical Environmental Impact Assessment (EIA) **mining guidelines** were produced for the mining sector.
- The Guatemalan government identified concrete steps/actions to take to improve **interagency coordination** on mining regulations and to improve **public participation** in mining governance.
- The Costa Rican government implemented new technology to improve its capability to **inspect mining operations**.
- Costa Rican authorities were introduced to clean **technological alternatives**, including the iCON 150 gravimetric concentrator, an alternative to reduce the severe environmental impact of using mercury in artisanal gold mining.

### Box 5. Implementation of SERVIR

The Regional Visualization and Monitoring System (SERVIR), a satellite-based program, was disseminated in the region, providing very useful data to mitigate and respond to natural disasters and threats, combat environmental problems, improve agricultural practices, and monitor air quality. In Guatemala, a major algae bloom spread across Lake Atitlan, a picturesque lake surrounded by steep volcanoes and Mayan settlements, as well as a major tourist attraction. NASA's satellite images showed the scope of the contamination and helped mobilize government action to begin dealing with the pollution. Also, when a red tide hit El Salvador, the real time SERVIR data helped fisherman by steering them away from contaminated waters, thereby saving millions of dollars in potentially lost revenue and protecting the health of Salvadoran consumers.



## Active public participation for environmental decision making

Public participation is a crucial element for the effectiveness of environmental decision-making. Through its outreach interventions, the Environmental Cooperation Program disseminated information that helped governments, civil society organizations, private sector stakeholders and individuals acquire a culture geared towards environmental protection and compliance with environmental laws. The program supported the production and dissemination of information in the media, including pamphlets, posters, sidewalk billboards, newsletters, flyers, stickers, press releases, reports, assessments, online social media, videos and radio/TV announcements. It also sponsored community meetings, workshops and specific training and capacity-building activities regarding the assessment and use of environmental information.

34,020+ individuals reached through **education and training activities** that foster communication between civil society and governments to **facilitate public participation in environmental decision making**.

1,471,146+ individuals have potentially been reached through **campaigns and outreach material on public participation mechanisms** and **environmental information** (2013-2016).

**97 public outreach campaigns** have been carried out (2013-2016).

These projects led civil society organizations to play an active part in compliance and enforcement of environmental decisions, through meetings with municipal authorities, mayors, ministries, NGOs, exchange trips, and municipal forums. This strategy proved most useful in the preparation of environmental initiatives (e.g., water and waste management projects), as beneficiaries already came to acknowledge the importance of issues and take a more open-minded stance on changing their traditional ways of dealing with environmental issues.

## Civil Society Organizations Engage in Environmental Protection

Civil Society Organizations in target countries have improved their advocacy and activism as a result of knowledge and tools acquired through various training workshops. The perception of civil society about the level and quality of their engagement in enforcement has been consistently high, with particularly encouraging results coming from the **Small Grants Program**.

## Small GRANTS for BIG Results

A Small Grants Program was launched in 2007 to engage local organizations in the CAFTA-DR countries, including non-governmental organizations, academic institutions, professional organizations, and other civil society organizations, in the public participation opportunities and mechanisms provided through the Environmental Cooperation Agreement. The Small Grants Program aims at increasing environmental protection through civil society engagement and public participation to support informed environmental decision-making in Central America and the Dominican Republic. The Program awards no more than US\$ 50,000 to enhance public participation in environmental protection in line with the CAFTA-DR Environmental Cooperation Agreement and national legislation.

Since the launch of the Program more than 40 local organizations have been awarded a Small Grant to implement projects towards strengthening and creating local capacities through trainings and awareness campaigns. The main components of the projects are knowledge of environmental legislation and public participation mechanisms.





## Box 6. Sustainable Fishing

## Nicaragua

The LIDER (Luchadores Integrados al Desarrollo de la Región) projects in Nicaragua have made excellent progress in strengthening organized groups or cooperatives, promoting alternative economic activities, and conserving the two protected areas of Volcán Cosigüina and Estero Padre Viejo (both in the subsystem of protected areas in the Gulf of Fonseca). Environmental education workshops have been conducted in 14 communities (1,266 participants: 704 males and 562 females) to educate individuals on the sustainable use of natural resources (e.g., fish, shellfish, mangroves and watersheds), as well as plan activities (e.g., reforestation and community fire brigades). LIDER has aided in the strengthening of six cooperatives: Marcelino Méndez, La Ballona, El Tintal, Poza de la Vaca, Kilaka and Kilakita. Support has been provided to help them establish fish cultivating farms, specifically using floating cages to house spotted rose snapper (pargo lunarejo), as well as sustainably harvest shellfish (concha negra). Additionally, technical assistance, specializing in hormone induced breeding of spotted rose snapper has been provided. In regards to shellfish, 18 hectares of mangrove concession (granted by Ministry of Environment and Natural Resources, MARENA) have been repopulated with concha negra, and 20 hectares of mangrove were restored, in an effort to promote this species' conservation and sustainable use. Monitoring of shellfish populations will also be undertaken in the areas that have been assigned for sustainable exploitation. Finally, two training events were provided to the cooperatives to identify opportunities for services and tourism to allow for the expansion of revenue generation activities. Currently, LIDER has begun implementation of another project in the region, with the goals of reaching more than 11, 000 individuals (including 55 owners of tourism businesses and local guides), extending the amount of land conserved and protected, and continuing the support of the cooperatives. During the first trimester, 1,400 people were reached from different parts of the populations, 36.2 hectares were conserved and reforested, and the cooperatives Hombres y Mujeres Esforzadas R. L., Marcelino Méndez R. L, and Gregorio López R. L brought in US\$15,512, US\$9,336 and US\$4,588, respectively.

These low environmental impact initiatives have the support and collaboration of MARENA and the Nicaraguan Institute of Fisheries (INPESCA), and are providing these communities with various activities to obtain satisfactory and stable income.



Sustainable fishing activities in La Ballona community.



## Box 7. Making Micro, Small and Medium Enterprises (MSMEs) more competitive through good environmental practices

### Guatemala

FUNDES Guatemala implemented the project "Towards the export competitiveness of MSMEs through the incorporation of good environmental practices." This project sought to strengthen Guatemala's compliance with CAFTA-DR environmental requirements, through knowledge transfer and support to enterprises on environmental and legal issues and the implementation of voluntary programs for continuous environmental improvement in companies (e.g., cleaner production programs and the ISO



Environmental Management System 14001:2004). The goal of implementing good environmental practices in MSME production lines was introduced to 15 MSMEs in different sectors including construction, food, agriculture, domestic and industrial chemicals, hydrocarbons, logistics and transport, and services. Overall, 33 individuals attended these workshops and subsequently a total of 340 workers (21% females) improved their knowledge in environmental legislation, relating to their productive activities. Clean production workshops were carried out with the 15 MSMEs and action plans were developed (nine were implemented) to environmentally improve their production activities (e.g., environmental impacts were identified and mitigation measures established). Of the MSMEs, nine were selected to be assessed for creating an Environmental Management System, based on ISO 14001:2004.



Throughout this training, the enterprises learned more on environmental legislation and cleaner production, focusing on those that related to their productive activities. Overall, a culture began to be created geared towards preventing pollution and complying with national and international legislation.





## Box 8. Promoting women's participation in environmental decision making

### Honduras



In Honduras, the MIMAT (Miskitu Indian Mairin Asla Takanka) project goal was to promote and enhance the participation and role of women groups to address and resolve the problem of solid waste and wastewater management that threaten the environment and the well-being of their communities. The project took place in the Río Plátano Biosphere Reserve (specifically the area of Gracias a Dios), where the most diverse and fragile wetland ecosystems of Honduras are located and five ethnic groups live (Pech, Garifuna, Tawahka, Miskito and Native Ladinos). Initially training workshops on gender issues, gender role, self-esteem, leadership, and equity were undertaken with 66 women of the area to strengthen their capacities to have an active participation in the project. Also, workshops were provided on national legislation, procedures related to solid waste management, and public participation mechanisms (133 individuals; 50% females). The women group of Esfuerzo y Triunfo collaborated with the Municipality of Juan Francisco Bulnes, while the women group MAPNA collaborated with the Municipality of Brus Laguna. Both groups were made up mainly members of the Garifuna and Miskitu ethnicity. With support by the local authorities, action plans were prepared to improve the sanitation and environmental conditions through a solid waste management system that included recollection and treatment of solid waste,

accompanied by an educational and awareness campaign. A technical study on solid waste management was conducted so as to describe the most adequate sites for disposal of the solid waste in both municipalities. Based on their strengthened capacities and access to sound information, both women groups had several advocacy meetings with the local authorities to establish agreements on developing in each municipality a solid waste management system. Esfuerzo y Triunfo achieved a signed commitment with their municipality to acquire a truck to collect trash in their working area. MAPNA achieved written authority to administrate the solid waste management system for their community. Both municipalities designated specific areas to locate the solid waste treatment and crematoriums. Also, four members of the two groups of women are part of the development management roundtables in the municipalities of Juan Francisco Bulnes and Brus Laguna. Both groups also applied for additional funding of their activities, acquiring more than US\$ 50,000 to implement their working plans. Campaigns were also conducted through radio spots, cleaning campaigns, and environmental lectures given to four high schools, reaching 67 students. Women from both groups are recognized and respected by their communities and their environmental conservation efforts are highly appreciated.



## In a few words:

Through its outreach interventions, the Environmental Cooperation Program disseminated information that helped governments, civil society organizations, private sector stakeholders and individuals acquire a culture geared towards environmental protection and compliance with environmental laws. The Program helped the improvement of **150 laws and regulations**; 28 new laws were adopted to address issues such as wastewater, air pollution and solid waste. **Over 120,000 people have been trained in environmental policy** and enforcement. More than **20 million people reached** through campaigns and outreach material on public participation mechanisms and environmental information.

# Biodiversity and Conservation



*“With this project, we have better living conditions because we eat a more balanced diet; we have plantains, avocado, fruits. What we have to do now is maintain the cultivation and look for markets [...] As producers with this project, we provide resources, labor and tools [...] All that we do is for the future of our children and grandchildren.” — Beneficiary of the *Desarrollo Agroforestal en la Reserva Natural Tepesomoto* project implemented by USFS in Nicaragua*

*“At the beginning, we did not take the project seriously. Project managers had never consulted us regarding what we needed, or requested that we be honest as to if we were actually working or not. Projects came here that brought money and left. This is different, because the technicians advise us and we decide what we are going to do [...] The project provided us with training in organic fertilizer and waste management. Now that we know how to better conserve nature, we have higher incomes and my land has greater value.” — Beneficiary of the *Desarrollo Agroforestal en la Reserva Natural Tepesomoto* project implemented by USFS in Nicaragua*



By combating illegal trade in endangered species, conserving and managing shared, migratory and endangered species, and promoting the sustainable management of forests, protected areas and other important ecosystems, the CAFTA-DR Environmental Cooperation Program is actively engaged in the protection of wildlife and its habitat for long-term economic and environmental development.

Key focus has been given to strengthening the scientific and institutional capacities of authorities in charge of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), training CITES implementation officials, building wildlife enforcement capacity and networks, supporting new or existing animal rescue centers, and preventing illegal logging.

## We want a region with ...

Enhanced implementation and enforcement of CITES regulations



Improved management of forest resources and protected areas



## Key partners:



Department of Interior (DOI) supported a large variety of initiatives related to capacity-building for CITES implementation.



Humane Society International (HSI) worked to develop new and improved rescue centers, as well as train personnel and develop tools for these centers. Also, they worked with local NGOs for creating wildlife awareness campaigns.



United States Forest Service (USFS) worked to provide technical assistance to help prevent illegal logging and the trade of illegal timber; as well as with marine turtle conservation.



# UNITED PROTECTING THE ENVIRONMENT!

...tracking progress of the CAFTA-DR Environmental Cooperation Program

- Training of **425 officials** from law enforcement agencies
- Nearly **8,800 animals** from **over 150 species** received proper care
- Approximately **1.3 million** hectares of biological significance were under improved natural resource management.



Improved natural resource management came as a result of the establishment of agroforestry systems (cacao, coffee, Musaceae), watershed management, integrated pest management, soil and water conservation practices, and reforestation.



## Box 1. Community Awareness Campaigns on Wildlife

Before the development of the latest environmental education outreach campaigns (supported by HSI) in each CAFTA-DR country, an informal baseline survey was carried out to gather perceptions related to wildlife. The baseline surveys were carried out in one large city, and in one small community in each country, surveying a total of 1,200 individuals. The acquisition of quality baseline information is important for both developing successful public awareness campaigns and for determining the success of any outreach campaign. The surveys also provided valuable information about how the campaigns needed to be focused as a result of people's general knowledge in each of the twelve locations. The implementation of all outreach campaigns has now been completed, reaching a total of 7,240,125 individuals across all CAFTA-DR countries. Following this, the second follow-up survey was completed. Also, as part of cost extension funds, additional campaigns, including TV and radio spots, billboards, and workshops, among others are being implemented, and a third follow-up survey will be carried out.

### Case Study 1. Training of Professional Park Rangers in Nicaragua



Nicaragua's 71 protected areas now have better qualified and more professional public and private park rangers. In 2009, MARENA conducted an intensive capacity-building campaign among 88 public sector park rangers, 12 from co-managing NGOs, and 20 representatives from civil society. This was accomplished through a round of trainings funded by USAID, and it is expected that the recipients will replicate their knowledge among the rest of their peers and in their communities. The training content included scientific and technical subjects such as introduction to biodiversity, environmental law, the importance of and planning in protected areas, and the functions of park rangers. Participants were also trained on the use of maps and compasses, the monitoring of flora and fauna, forest fires, wetlands, and human resource management. At the end, the participants' knowledge was assessed, and a final work practice was required to receive the certificate.

*Source: U.S. Agency for International Development ([www.usaid.gov](http://www.usaid.gov))*

### New or improved tools used by public institutions in charge of enforcing cites to enhance wildlife protection and forestry species conservation:

- New laws and regulations have been adopted to strengthen the CITES legal framework and foster biodiversity protection, including legislation in Costa Rica, El Salvador (e.g., Salvadoran CITES Authorities' Category I status for national CITES legislation compliance was formally approved at the CITES Conference of the Parties in Doha, Qatar) and Honduras
- Taxonomic guides have been developed for *Tillandsia* identification (Guatemala), species at risk (El Salvador), iguanas, and forest species, to name only a few
- Two community wildlife trafficking route maps have been completed for Nicaragua and El Salvador
- Development of a CD with an interactive course that contains administrative, legal and technical aspects of the implementation of CITES, as well as providing training workshops and training instructor workshops





- An interactive training CD on animal handling was developed, including field guides and references to CITES regulations, as well as providing training
- An economic valuation study of CITES species in CAFTA-DR countries was undertaken, as well as study to analyze the behavior of trade in CITES species in the region
- Updated listings of endangered species were prepared through an effort supported by USAID, the DOI, and other agencies (presented in CITES's COP 15 in Qatar)
- Development of monitoring systems, as well as the development of guidelines for Non-Detriment Findings (NDF) under CITES
- A large range of capacity-building efforts were undertaken, including workshops and trainings, study tours, national, regional and international meetings/workshops, focusing on activities on a range of topics, including transport regulations, rescue center best practices, animal handling, forest legislation, wood identification workshops (e.g., rosewood), ecotourism, sustainable agricultural techniques, as well as best practices for the implementation of wildlife legislation, including CITES basic legal structures, implementation and enforcement, CITES fines, trade regulations related to CITES, and coordination mechanisms for CITES implementation

## Box 2. The Central American Wildlife Enforcement Network (CAWEN)

Recognizing the need for better national and regional coordination to confront the growing illegal wildlife trade, DOI-ITAP worked with a wide variety of government and non-government entities (e.g., TRAFFIC and CCAD) and supported the establishment of the Central American Wildlife Enforcement Network (CAWEN) (ROAVIS, Red de Observancia y Aplicación de la Normativa de Vida Silvestre, by its Spanish acronym), a regional inter-agency mechanism. CAWEN was instrumental in building significant political support to confront illegal wildlife trade by facilitating government-to-government coordination. This led to the development of a consensus on priorities to be addressed through collaboration, and the elaboration of a CAWEN roadmap for workshops and trainings. Overall, these regional meetings provide an efficient venue to share best practices, discuss national and regional priorities, identify capacity gaps, and provide opportunities for government officials within the region to engage in joint collaboration, and enhance government-to-government cooperation in CITES.

3200+ individuals trained to improve CITES implementation and enforcement including custom officers, other officials and NGO representatives (DOI, WWF/TRAFFIC/USFS-Nicaragua, HSI)



## Number of reported illegal trade or seizures:



Seizure of parrots by government officials of El Salvador.  
*Photo courtesy of DOI*

### Box 3. Improved Implementation of CITES laws and regulations

CITES capacity-building workshops and joint wildlife enforcement/inspection operation planning meetings gave government officials from various agencies a solid working knowledge of CITES at both the global and country levels. Participants from wildlife compliance, enforcement (e.g., customs officials), and judicial agencies, benefited from instruction on wildlife inspection and enforcement, as well as general information regarding CITES monitoring and enforcement. CITES monitoring and enforcement officials from a variety of compliance, enforcement, and judicial government agencies, including judges, are now better acquainted with procedures to carry out wildlife inspections and implement CITES laws and regulations.

**3,443** Hawksbill turtle product articles were seized at point of sale locations throughout the Dominican Republic)

**285** Pieces of jewelry and other turtle products were also confiscated in the Dominican Republic; and The inter-country Wildlife Seizure Cooperation Agreement between El Salvador, Honduras and Nicaragua, and the collaboration between CITES authorities, allowed for the seizure of an illegal shipment of parrots transiting from Nicaragua to El Salvador via Honduras.

**5** Countries received assistance on upgrading their CITES information systems to improve data quality and decision-making capabilities, specifically Costa Rica, Guatemala, Honduras, Nicaragua, and El Salvador (in process).

**3** Countries have developed web-based management systems for CITES permits, specifically Nicaragua, Honduras and Costa Rica.

In Honduras, existing information systems were improved to expand CITES management and increase efficiency. This was done by adding a function in the basic electronic CITES permit verification system to scan permits into a database, for access at all ports of entry or exit. Because of this new function, officials at ports, when presented with a CITES permit, can now consult the database to ensure the permit is valid and unaltered. Testimonies from CITES and customs officials confirm that this improvement led to a significant increase in the detection of fraudulent and altered CITES import and export permits In 2011.

**305** **Government representatives** of Honduras enhanced their knowledge of systems and methodologies used to prevent and combat illegal logging (trained to recognize 20 to 30 of the most common illegally-traded tropical wood species in the region).



**98 Agents** strengthened their skills to process timber violations.

**77** Government and University representatives were trained in wood identification workshops in El Salvador and Guatemala to learn how to properly distinguish rosewood species (*Dalbergia*).

Surging domestic demand in China for rosewood, also known as redwood, cocobolo, or rosul (scientific name: *Dalbergia*) has been driving illegal logging of these rare and very valuable tree species across Central America.

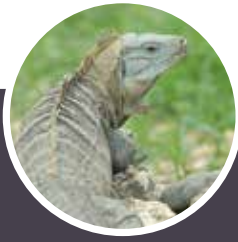
By streamlining the legal process and enforcement (sanctions) associated with the trade of illegal timber, CAFTA DR ECP contributed to the enforcement of environmental laws in this area. Prior to this, illegal logging activities were sometimes detected and filed, but fines and sanctions could not always be applied because the authorities were not fully aware of legal processes to prosecute crimes and carry out sanctions. USFS supported training activities to review the steps involved in the legal process for investigating, filing and prosecuting crimes and for carrying out sanctions against those involved in illegal timber trade.

## Coordination mechanisms developed and used by CAFTA-DR governments to enhance animal protection and well-being:

- Joint efforts with rescue centers and government agencies from CAFTA DR countries led to the creation of a rescue center network to exchange all types of relevant information, including sustainability practices
- Costa Rica passed new wildlife legislation by popular initiative in 2013
- El Salvador passed legislation banning circus animals, by means of a reform of its Law on the Conservation of Wildlife
- Nicaragua passed new animal welfare legislation in 2010
- New regulations for animal welfare are being drafted by the Honduran Association for the Protection of Animals and their Environment (AHPRA), to be implemented in municipalities throughout the country
- A formal partnership with the CITES Secretariat (headquarters in Geneva) to develop long-term and high-level collaboration was established. As a result:
  - ▶ El Salvador achieved CITES Level 1 category
  - ▶ The CITES Secretariat participated in legal counseling and oversight in the processes for the updating and revision of CITES regulations in Nicaragua, Honduras and Costa Rica
  - ▶ Coordination with CITES Secretariat regarding training and exchange of experiences on non-detrimental findings for extraction in CAFTA-DR countries
  - ▶ The Government of El Salvador approved the 2010-2020 Marine Turtle Action Plan







**8,800** animals of **150+** species were saved through the rescue centers

### Case Study 2. Improvements in Animal Rescue Centers



➤ Capacity building workshop on animal handling. *Photo courtesy of HSI*

HSI supported initiatives to improve animal rescue centers and to engage multiple stakeholders (e.g., government officials, national police forces, and customs officers) to improve animal welfare. Support to improve animal care included the development of training protocols adapted to each centers' location and needs, and in some cases the purchase of materials and support for infrastructure to build new centers. HSI technical assistance reinforced rescue centers' procedures primarily for rehabilitation and quarantine procedures, with the development of generic protocols, an animal handling curriculum CD and field guides and, in some cases, the provision of equipment for animal care support. Training and protocol topics include animal intake, rehabilitation, emergency and evacuation, quarantine release, and euthanasia. HSI also developed generic rescue center protocols that governments can now utilize to improve existing rescue centers or use as requirements to establish new rescue centers. In the Dominican Republic, where poachers raid the nests of Hispaniola parrots, the animal care CD has been extremely helpful in teaching how to care for the young confiscated birds. In Guatemala, a quarantine training protocol developed for the rescue center managed by the Association for the Rescue and Conservation of Wildlife (ARCAS) reduced the average staying period of animals in the quarantine area.

Some of the most common rescue center species included: Howler monkeys, Jaguars, Margays, Yellow-naped Amazons, Scarlet Macaws, Great Green Macaws, Rhinoceros Iguanas, Beaded Lizards, American Crocodiles, Hawksbill Turtles, White-faced Monkeys, Hispaniola Amazons, Rainbow-billed Toucans, Green Iguanas, and Boas.



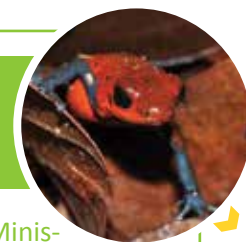
### Case Study 3. Economic Benefits derived from Biodiversity and Conservation



View of Miraflores-Moropotente protected area (Esteli, Nicaragua)

In addition to environmental benefits associated with the certification process and with improved farming and forested area management practices, other biodiversity and conservation interventions implemented under the CAFTA-DR Environmental Cooperation Program have also generated economic benefits. For instance, in Nicaragua, the Program worked to develop the tourist potential of biodiverse areas and turtle nesting refuges around the Chacocente region. As a result, the Program helped create employment opportunities for 21 people engaged in tourism activities, which earned about US\$12,000 that they could use to support their families. Other two projects were implemented that aimed to restore farming lands through the establishment of agro-forestry (bananas, coffee, fruit and wood trees, and vegetable patio gardens) and pastoral productive systems. These projects “Establishment of Agro-forestry Systems in the Miraflores-Moropotente Protected Area (Esteli)” and “Agro-forestry Development in the Tepesomoto-La Pataste Nature Reserve,” sought to enhance the capacities of producers to improve yields through conservation agriculture and the integration of environmentally-friendly practices into the production system.

### Case Study 4. Nicaragua and Guatemala Strengthen Enforcement of International Trade in CITES Species



Poison arrow frog. Image courtesy of DOI

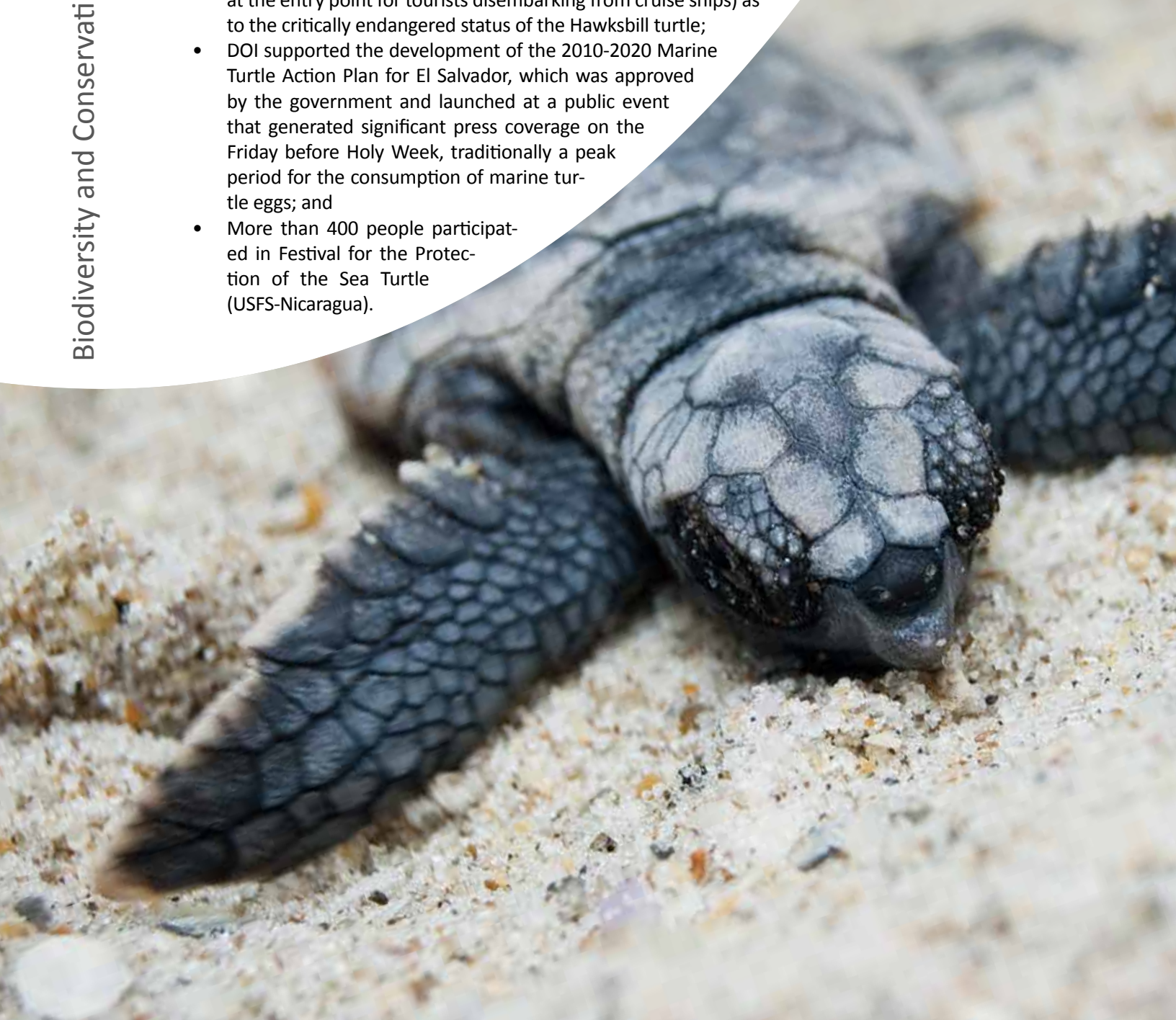
The CAFTA-DR Environmental Cooperation Program worked with the Nicaraguan Ministry of Environment and Natural Resources to support the development of a project in the Department of Rio San Juan that taught a local women’s cooperative the techniques for sustainably ranching poison-arrow frogs for the international pet trade. Through careful monitoring, the cooperative can improve their livelihood while protecting the habitat and population stability of the frogs. Implementers of the Program met with Nicaraguan CITES Authorities and their consultants to review the frog ranching project feasibility study, and provided scientific sampling equipment for the project and trained local biologists and lab technicians on population and chytrid fungus sampling techniques necessary for the project. The Program also provided technical advice on site selection criteria, the economics of the international pet trade, methods for protecting against the spread of chytrid fungal infections, frog husbandry, and other issues. As a result of collaboration, Nicaragua’s community-based frog ranching project is equipped to protect the habitat and population of poison arrow frogs and provide new opportunities for a rural community.

In addition to its beauty and ecological importance, the genus *Tillandsia* (Bromeliads) provides opportunities for commercial trade and is an important source of income for Guatemala. Effective control of internal and international trade is a priority for Guatemalan CITES officials, in order to ensure sustainable use of the species and maintain a healthy population. With support from the Program, the National Council for Protected Areas developed a *Tillandsia* Identification Guide for Guatemala. The guide contains 74 species, including basic information and photographs at different stages of development, so that customs officials and wildlife technicians can correctly identify and control the species at ports of entry, border crossings, airports, and in protected areas.



## Improved Conservation of Marine Turtles:

- The group ACOTPRO is developing a patrol program for marine turtles in El Progreso, Costa Rica
- The Costa Rican NGO Fundación Corcovado has organized volunteer surveillance teams (13 international volunteers and 22 local community members) in the Osa Peninsula, protecting 67 sea turtle nests
- USFS has also overseen the construction, maintenance and relocation of nests, as well as the release of newborn turtles and nest exhumation
- In the Dominican Republic, a local NGO, Grupo Jaragua, educated international tourists (e.g., public service announcements that were posted in and around the baggage claim areas of airports and also at the entry point for tourists disembarking from cruise ships) as to the critically endangered status of the Hawksbill turtle;
- DOI supported the development of the 2010-2020 Marine Turtle Action Plan for El Salvador, which was approved by the government and launched at a public event that generated significant press coverage on the Friday before Holy Week, traditionally a peak period for the consumption of marine turtle eggs; and
- More than 400 people participated in Festival for the Protection of the Sea Turtle (USFS-Nicaragua).





#### Box 4. Decreasing Turtle Mortality

The CAFTA-DR Environmental Cooperation Program hosted training workshops to present the benefits of using circular fishing hooks for non-nylon fishing lines. Among the key topics were techniques to de-hook and release sea turtles caught by fishing long lines. To measure compliance with environmental standards presented at training workshops, ELE conducted commercial trials in Nicaragua and Costa Rica where the fisherman in general accepted the exchange of the “J” hooks for circle hooks. During these experimental fishing trips, 25,900 hooks were used and 105 turtles were caught as by-catch, with less than 1% turtle mortality.



#### Case Study 5. Developing Integrated Community-Government Law Enforcement

Multiyear interventions to ensure sustainable management and conservation resulted in a comprehensive “Law Enforcement and Governance Strategy and Action Plan” for Guatemala’s Maya Biosphere Reserve (MBR). Manuals and protocols were designed to collect environmental crime data while on patrol, analyze and categorize this information, and use self-protective measures while patrolling in conflict zones. Moreover, strategic law enforcement posts were built in the MBR, and law enforcement patrols were equipped to perform their work. Consequently, confiscations of timber being trafficked across the Belize-Guatemalan border increased from 2012 to 2013.

Through the process, Fundación Balam, a local Guatemalan NGO, was strengthened to perform outreach and education. It was later selected by the Government of Guatemala to represent all NGOs on the recently-established Petén Security Workgroup. Community representatives were trained as tour guides in an effort to initiate the transition from a resource extraction economy to a tourism/resource protection economy in MBR. Local communities completed a biological monitoring of jaguars (Guatemala’s CITES flagship species) through camera trapping surveys in the Mirador and Tikal sites. These surveys were conducted with the support of local community members from Carmelita and Uaxactún, who were hired and trained as technicians and oversaw the installation, maintenance and monitoring of cameras.





# Market-Based Conservation



*"[...] We made comparisons about the ways coffee is produced and traded in our country and in Colombia and we realized the importance of government support, that in our country is small or absent. Colombia embraced coffee production as a national strategy and promoted public private collaboration. The Rainforest Alliance certification program is adding value on top of Colombian differentiation because the country has built its own brand. We should be lobbying in our country to get vertical and horizontal integration in the coffee sector under the auspices of sustainable production and trade." —Prospero Trejos (Manager Cooperative Ciudad Barrios, San Miguel, El Salvador)*

*"We are promoting sustainable agriculture and we have only Rainforest Alliance certified and organic producers. [...] Through coffee differentiation we are making a difference and setting an example for young generations. We are proudly producing coffee and pushing change in the current mindset. We feel that coffee is a unifying element in Latin America and we should work together to define the sustainability model."—Roberto Piñeda and Alvaro Barbosa (small coffee growers, co-founders of the Specialty Coffee Association Fusagasuga, Cundinamarca, Colombia).*







*“This program has been very useful for us because we are able to work differently using sustainable practices for coffee production. Now, we know the importance in producing certified coffee and its benefits for the environment and the community. I’m aware and proud that my practices allows for wildlife protection.” — Coffee Producer and beneficiary of the Strengthening Existing Sustainable Agriculture Initiatives in the CAFTA-DR Region to Meet Growing Market Demands for Rainforest Alliance Certified Farm Goods project implemented by Rainforest Alliance*

*“Sustainability is a key element in our programs. The Environmental Cooperation Program is consistent with Rainforest Alliance’s work plan on sustainable agriculture. We develop a strategy in order to add value to the supply chain (from the producer to the market). We promote a sustainable agriculture program. We help producers to obtain a certification if we already have a market for potential Rainforest Alliance Certified food product.”*

**— Rainforest Alliance Project Manager**

*“Now we have realized that we can work together; following this work on fishing guidelines we have now realized that we must think of our future and strive towards a real change in the management our fisheries.” - Angelica Mendez, Coordinator of the Fisherman's Network, Guatemala*





Several interventions have taken place in the last 10 years under the CAFTA-DR Environmental Cooperation Program with the goal to **strengthen institutions for the effective enforcement and compliance of environmental legislation.**

# We want a region with ...

Improved management and conservation of natural resources through:

Ecotourism



Production of crops favorable to the environment



Commercialization of forest products and other products with ecological certification



Increasing areas of land under improved natural resource management



## Key partners:

Rainforest Alliance (RA) worked with coffee, cacao, banana and pineapple producers to enhance the environmental and economic sustainability of their production through their organic and fair trade certification process.

Humane Society International (HSI) worked with farmers who had abandoned cacao plantations or were having very limited yield, to enhance their production and highlighted the importance of protecting wildlife living in these productive areas.

United States Forest Service (USFS) worked with communities to promote ecotourism and sustainable agriculture.



## **34,000+ individuals 23+ communities**

Have attended best practices events, workshops, and trainings on ecotourism, sustainable or environmentally-friendly agricultural practices, organic certification, school garden management, natural resource management and/or biodiversity conservation.



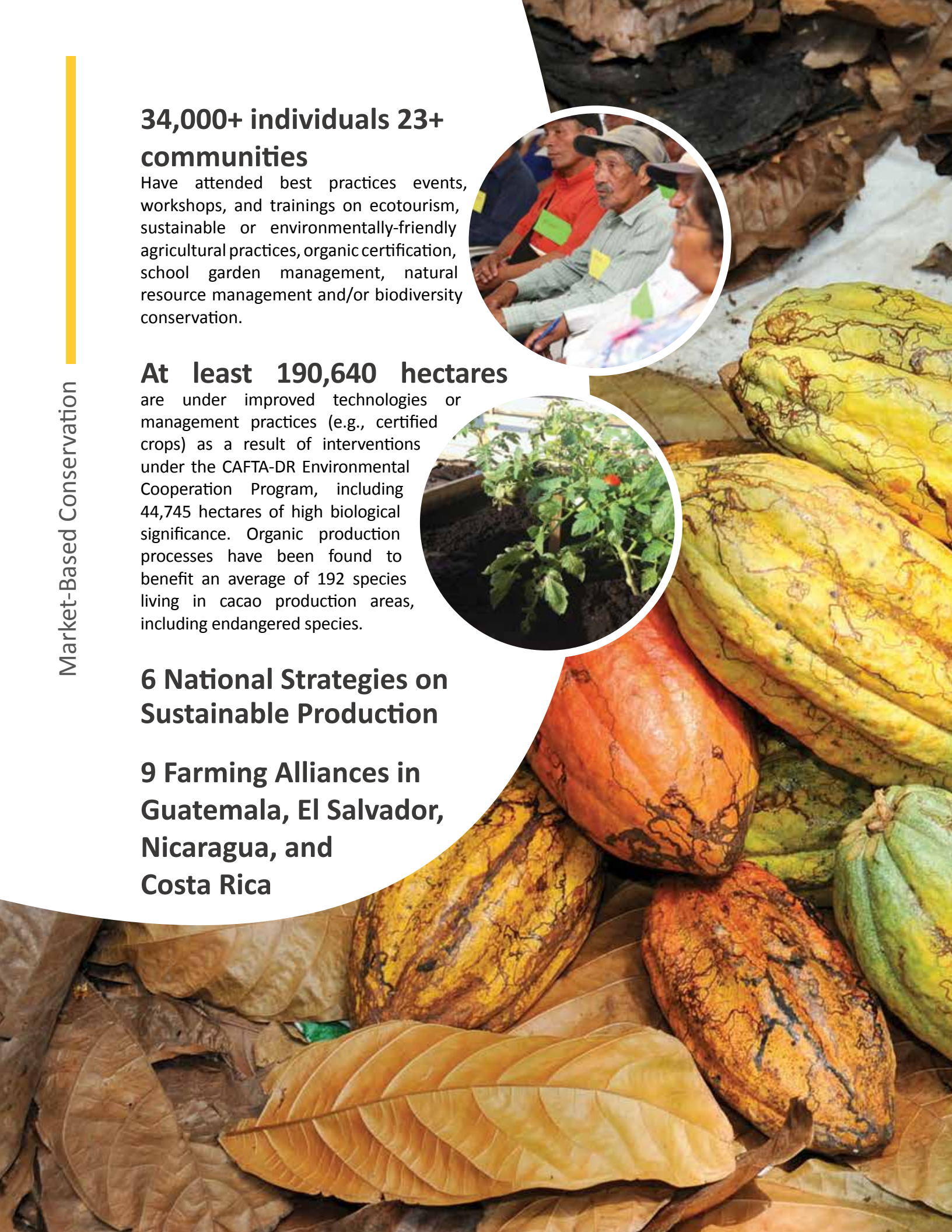
## **At least 190,640 hectares**

are under improved technologies or management practices (e.g., certified crops) as a result of interventions under the CAFTA-DR Environmental Cooperation Program, including 44,745 hectares of high biological significance. Organic production processes have been found to benefit an average of 192 species living in cacao production areas, including endangered species.




## **6 National Strategies on Sustainable Production**

## **9 Farming Alliances in Guatemala, El Salvador, Nicaragua, and Costa Rica**






- Over **20,500** farms growing bananas, coffee and cacao in CAFTA DR countries were certified between 2007 and 2013.
- **9** fields of organized farmers were certified covering different products (fruits, vegetables and fish).
- **42** micro, small and medium enterprises have completed the Green Deal Tourism Certification and are applying Sustainable Tourism Good Practices
- Certification of tropical green leaf timber production and exportation



The certified and sustainable products in the market from CAFTA-DR countries as a result of environmental cooperation activities include: timber, banana, coffee, cocoa, broccoli, melon, okra, pineapple and mahi-mahi.



Overall, the certification process has yielded several environmental benefits, including enhanced soil fertility, reduction of contaminants in the soil, surface water and underground water, and increased cover of native species, all helping to preserve the health of producers and their families and the environment.

Coffee grower  
Photo courtesy of RA



### Box 1. The Importance of Ecotourism

Tourism is a major driver of world trade and ecotourism is becoming increasingly important. Nevertheless, many of the most promising protected areas for ecotourism are either mismanaged or being converted to agricultural land. Ecotourism can help to provide incentives and alternatives for local producers to manage biological and water resources sustainably. Many CAFTA-DR businesses and community operations involved in environmental cooperation activities have reported increased economic benefits by reducing costs and increasing client satisfaction through the implementation of sustainable tourism good practices.



## Types of improved production practices being used by farmers:

- Protection of shade trees
- Planting of additional native shade trees (fruit and forest trees)
- Maintenance of wildlife corridors
- Utilization of organic fertilizers
- Application of green manure during the fallow period
- Reduction of reliance on pesticides in favor of biological and natural alternatives
- Prohibited from using any banned pesticides
- Optimization of water use for irrigation
- Improvement of food safety practices
- Micro-grafting of superior cacao clones, resulting in better yields and fewer disease-infested crops



**8,000+ individuals** have **increased economic benefits** derived from sustainable natural resource management and conservation, including ecotourism and the growth of certified crops, as a result of USG assistance (as of 2013).



**2.1x INCREASE** in the **sales of Rainforest Alliance-certified** coffee, bananas and cacao grown in the CAFTA DR countries (US\$ 1.2 billion in 2007 to US\$ 2.5 billion in 2012).



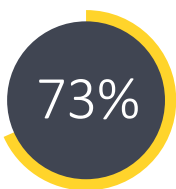
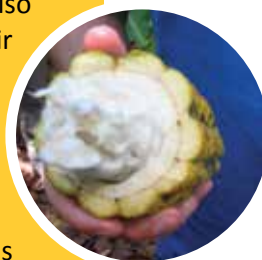
**8-12 cent INCREASE** per **pound of coffee** for the vast majority of farmers selling coffee with the Rainforest Alliance-certified seal.





## Box 2. The Benefits of Certification

In addition to increased prices for certified products, producers can also receive other economic benefits, such as the access to larger markets or the ability to sell wood and fruit through the plantation of shade trees. Producers also experience improved crop productivity and reap the environmental benefits of soil and water conservation. They can also enjoy social benefits on their farms and in their homes, including better access to education and training, and gaining the recognition of other producers in their communities. Furthermore, a 2009 study of social impacts published by Social Accountability International indicates that compared to non-certified farms, certified farms performed better in the areas of fair contracts, child and adolescent labor, remuneration, forced and bonded labor, occupational safety and health, housing, and community relations. All of these factors emphasize why the interest in certification continues to rise for all major certifiable crops.



73% of Rainforest-Alliance-certified coffee growers received higher prices for their coffee.



69% of Rainforest Alliance-certified coffee growers had better access to markets.



Over 400 Beneficiaries of CAFTA-DR Environmental Cooperation Program received higher prices for their cacao production (87% received between 25-35% higher prices). Certified cacao sells for about US\$ 200 per metric ton more than uncertified beans.



## Case Study 1. The Sustainability of the Rainforest Alliance-certified Coffee Program

Coffee is one of the world's most traded commodities; however, smallholder farmers in coffee-growing regions face many challenges, including poverty, commodity price fluctuations and increasingly erratic rainfall patterns caused by climate change. The Program worked to strengthen the position of coffee farmers by training them in methods that boost yields and maintain the health of the land for future generations. This success is seen by the fact that certified coffee producers under this Program in the CAFTA-DR region have become especially proactive in explaining the benefits of certified products to producers who are not part of the Program. The proactive nature of these producers thus highlights the extent to which achievements have not only directly impacted the initially targeted beneficiaries, but also have indirectly impacted a group of secondary beneficiaries.

In 2013, international coffee prices declined; however, the demand for certified coffee continued to rise everywhere. For example, leading companies like McDonald's USA and McDonald's Canada, Caribou Coffee, Second Cup, Green Mountain Coffee and Nespresso have all incorporated into their supplies significant quantities of coffee beans grown on Rainforest Alliance-certified farms. While certification costs are high, its benefits of market stability and quality standards offset the investment. Specifically, certified coffee is generally of higher quality than uncertified coffee, thus certified production acts as a buffer between the international prices and the farmers. Overall, this rapid growth in sustainable sourcing is contributing to major environmental, social and economic improvements for coffee growing communities around the world.


## Case Study 2. Prospects for Cacao Production

Cacao in Central America has great potential to improve the livelihoods of marginalized small producers and their families while contributing to environmental protection and conservation. Cacao is one of the most viable cash crop alternatives for families in poor areas as it requires few purchased inputs, can be grown on small plots of land with little hired labor, and allows producers to diversify production and income as part of an agroforestry system when intercropped with timber or other tree crops. Cacao is an important alternative as climate change makes coffee production in some areas less viable. Furthermore, cacao is a cash crop that promotes reforestation of land cleared for pastures or annual crops.

In 2013, Mars, which buys about 10% of the global supply of cacao beans, said it planned to buy 90,000 metric tons of certified cacao, double what it purchased the previous year. The company said it will spend US\$ 30 million a year for the next decade on cacao that is certified by third-party auditors and on-the-ground research and production improvement programs for farmers. Hershey, the maker of its eponymous chocolate bars and Kit Kat bars, said that it would produce chocolate made only from certified cacao beans by 2020. That follows similar measures from Mars and from Barry Callebaut AG, which buys around a quarter of the global cacao output to make chocolate products for food manufacturers.

**Sources:** Progress Report: Pathways to Prosperity in the Cacao Value Chain. Lutheran World Relief. October 30, 2013; Progress Report: Strengthening Existing Sustainable Agriculture Initiatives in the CAFTA DR Region to Meet Growing Market Demands for Rainforest Alliance Certified Farm Goods. 1st July through 30th September 2012 (Quarter Sixteen).





### Case Study 3. The Sustainability of the Rainforest Alliance-certified Coffee Program

One of the great achievements with regards to market-based conservation is the linkage between the suppliers of certified products and the market of buyers. Several alliances were established between food stores or supermarket chains and farmers associations, which allowed the promotion of certified products, ensured incomes for farmers, and helped in the development of environmental standards in various products' supply chain. Alliances meant to improve environmental practices in the production processes can also help enhance food security, mostly in the fruit and vegetable production sector, with the participation of all stakeholders involved in the value chain of these products.

Another mechanism to facilitate this linkage was the traceability system developed by Rainforest Alliance which assists the tracking of certified products through the supply chain and enables producers to collect premiums for sustainable goods. The traceability system also facilitated the development of an electronic marketplace, making it easier for buyers to source sustainable materials. In addition, it helps with market development, communications, and monitoring and evaluation. Since the project's inception, 2,115 new companies registered in Marketplace (a growth of 172%), and 652 new companies signed Licensing Agreements to use the Rainforest Alliance-certified seal (381% growth). These figures indicate a tremendous increase in the demand for sustainably-produced goods. The information gathered so far shows that the vast majority of certified producers have been able to sell their harvests to the most demanding companies.

## In a few words:

To date, much progress has been made in improving the livelihoods of CAFTA-DR peoples by promoting and implementing organized, sustainable, and **environmentally-friendly systems** that create **economic incentives** for individuals and enhance long-term **environmental conservation and wildlife protection**. Clearly tangible positive impacts, both for the population whose livelihoods come from the forest and plantations, and for the environment from which they get their living have been realized.



# Private Sector Environmental Performance



*“With cleaner production we have learned to improve our environmental management. It has been a tool that has shown us the way towards sustainable development and improving the quality of life of our people...The success of this project is owed to the tremendous commitment of the municipal authorities, the MARN delegate of the Municipality of Panajachel, the private sector, and the schools and communities that understood the importance of conserving and improving their interaction with Lake Atitlán.”* Carlos Bracamonte Rovello, Mayor of Panajachel.

*Since its initial stages in March of 2010, the project included the commitments of municipal authorities, government, and business associations. In this manner all efforts were consolidated to facilitate the sustainability of the results. “With this project we were able to ‘wed’ the interests of the different actors that interact around the lake for the benefit of the community to achieve the conservation of natural resources in order to ensure the enjoyment of future generations.”* – Giovanni Tovar, Delegate of MARN, in the Panajachel Municipality



Micro, Small and Medium Enterprises are great contributors to the CAFTA-DR region's GDP. The Environmental Cooperation Program has been partnering with the private sector to improve environmental performance through cleaner production strategies, environmental management systems, voluntary mechanisms, public-private associations, and by building stronger institutional and human resource capacity.

## We want a region with ...

Improved trade policies and incentives related to environmental issues and greater private sector commitment to environmentally responsible behavior.



## Key partners:

World Environment Center (WEC) trained selected MSMEs locally, often with the help of student interns, to assist them in developing action plans to sustainably improve their manufacturing operations and environmental performance. Together with the organization Higher Education for Development (HED), they launched a program to help build a modern workforce by emphasizing education, training and engaging students with the private sector to develop responsible and sustainable business practices.

USAID Environmental and Labor Excellence Program (ELE) (often with CCAD - Central American Commission for Trade and Environment) - worked with the private sector, supporting companies individually, by sector, or through associations, to adopt cleaner production and energy efficiency best management practices and technologies. In addition, they focused on creating, improving and strengthening financial and nonfinancial incentives; providing technical assistance specializing in a wide range of topics; and building capacity of professionals, teaching courses and direct training or through educational institutions.



## Policies, regulations, and incentives that promote the use of cleaner production practices:

Policies and incentives have been developed in all CAFTA-DR countries.

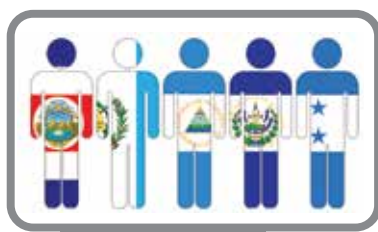
The Program supported the implementation of cleaner production awards at the national and regional level. These awards are presented in different categories, including small, medium and large companies; cleaner production, energy efficiency, optimization of use of water and materials, and eco-design, among others.



The Environmental Cooperation Program supported **over 714 companies in cleaner production technologies.**

## Box 1. The Motivation for Implementing Recommended Cleaner Production Measures

A survey of participating companies found the main driver to implement measures was “lower production cost (25%)”, followed by “higher quality products (16%)”, “increased productivity (15%)”, “financial incentives (14%)” and “improved client/customers relationships (11%)”. These categories accounted for 81% of all answers. The remaining categories, “comply with state regulations/laws/standards”, “development of new products”, “pressure from customers” and “other,” turned out to be minor drivers (6% or less).



5 national committees/commissions to propel cleaner production policies (Costa Rica, Guatemala, Nicaragua, El Salvador and Honduras).



770 + MSMEs have adopted new technologies or practices to respond to environmental standards.

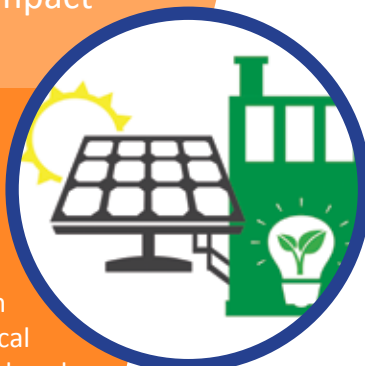
The types of businesses implementing Cleaner Production and Energy Efficiency strategies include swine, dairy, cattle, and poultry (small and large) farming; agriculture; abattoir sector; services sector; tourism (e.g., hotels); processing plants (e.g., sugar cane); chemical manufacturing; tire and battery recycling operations; etc.

An **Environmental Management System (EMS)** is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency (<https://www.epa.gov/ems>). The **EMS training** involves: (1) informing businesses about the opportunities for increased competitiveness provided by EMS; (2) supporting business owners to develop and implement EMS in the workplace; and (3) building EMS capacity within universities and technical institutions by training young professionals through bachelor level and technical courses (ELE).



## Box 2. Dual Benefits of Reduced Environmental Impact and Increased Profitability

Environmental contamination from industry poses a serious risk to the region's ability to compete as efficient trade partners. Industry can often achieve and exceed compliance by preventing the generation of contaminants in the first place, and save money and improve its competitive advantage in the process by reducing resource consumption and waste. The Environmental Cooperation Program provided micro, small and medium enterprises with technical assistance in energy and water conservation; waste, raw material and emissions reduction; thermal energy efficiency audits; environmental management systems; and accessing financial resources required for adoption of the enhanced techniques. The benefits of investing in cleaner production practices and technologies are often not initially obvious to MSMEs. But as the dual benefits of reduced environmental impact and increased profitability become more widely understood, more MSMEs within CAFTA DR countries are expected to adopt clean production practices, beyond the scope of the projects initiated under the Environmental Cooperation.



Cleaner Production Project, Costa Rica.  
Photo courtesy of WEC

## Types of technologies or practices adapted and implemented in MSMEs to respond to environmental standards

- Energy consumption reduction strategies (e.g., pipe insulation, energy efficient light bulbs, solar panels)
- Water consumption reduction strategies (e.g., low water use faucets and shower heads)
- Waste material reduction and contamination prevention (e.g., wastewater pre-treatment)
- Re-use of organic waste and energy generation from biomass (e.g., methane from manure)
- Solid and liquid (raw material) input reduction
- Air emissions reductions
- Climate monitoring stations (e.g., precision agriculture to reduce the use of pesticides, herbicides, and water consumption)
- Implementation of environmental management systems

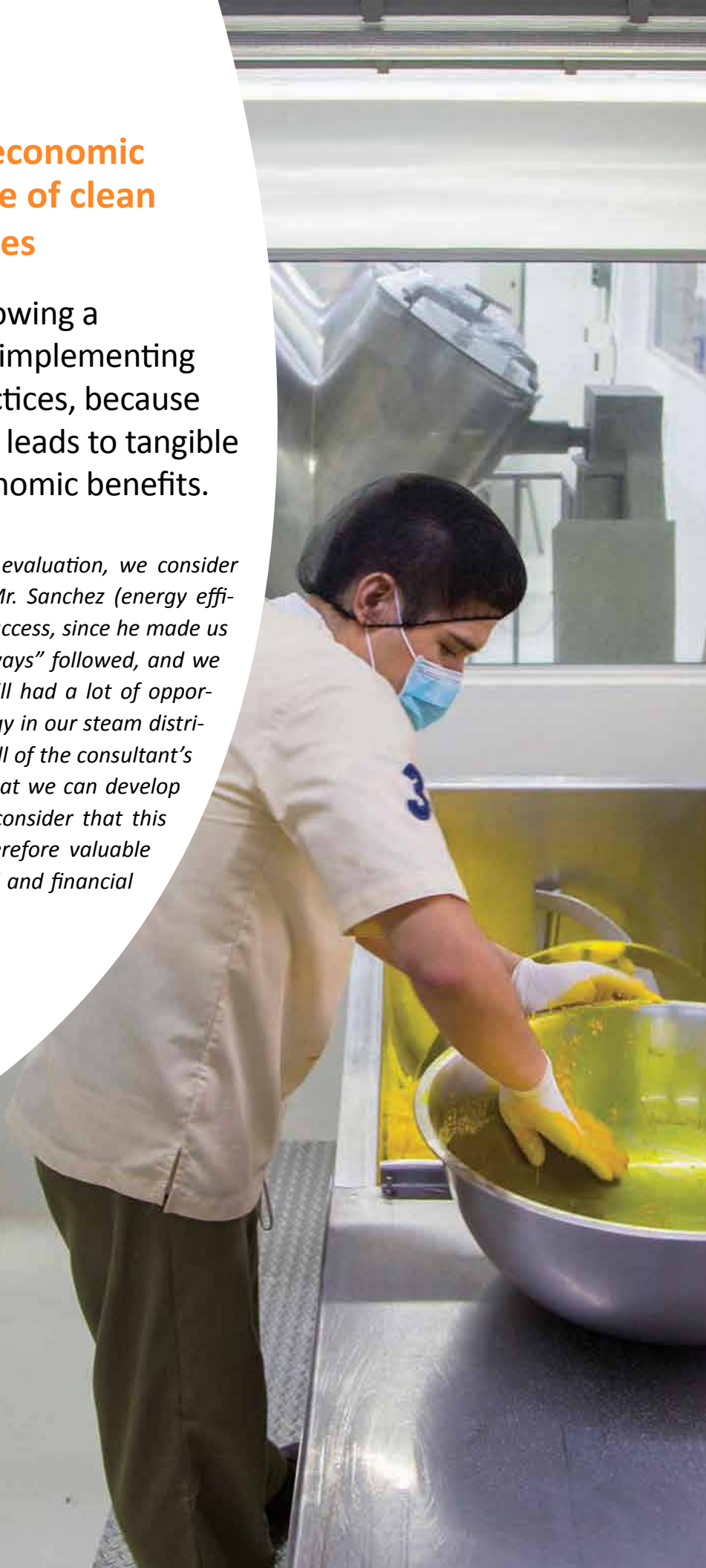


## Environmental and economic benefits from the use of clean production techniques

The private sector is showing a fast-growing interest in implementing cleaner production practices, because adopting such practices leads to tangible environmental and economic benefits.

*“Even without the final financial evaluation, we consider that the consultancy work that Mr. Sanchez (energy efficiency expert) did with us was a success, since he made us review practices that we had “always” followed, and we saw, more objectively, that we still had a lot of opportunities to improve and save energy in our steam distribution system. We reiterate that all of the consultant’s recommendations were within what we can develop in realistic terms. Therefore, we consider that this was a practical, effective and therefore valuable consultancy for our environmental and financial management process.”*

- Engineer Alberto Borbón Castro,  
Production Manager, Hulera  
Costarricense Ltd., Costa Rica  
(translated from the original  
Spanish, taken from  
USAID 2011)



15,000  
+

**Ton DECREASE  
in yearly  
greenhouse gas  
emissions.**

Reductions in air emissions were due mainly to the decline in energy consumption derived from energy efficiency measures, as well as process and materials recommendations in the action plans.

927,053  
kWh

**DECREASE in yearly  
energy usage.**

Several companies initially insisted on working on energy issues due to their direct impact on costs, but they found that the greater economic and environmental potential was instead in their production processes. A common misconception is that the greatest opportunity for savings lies in reducing energy consumption, but this is only true for companies that have already optimized their processes.

9,348,504

**Gallon DECREASE  
in yearly water  
usage.**

Several MSMEs were able to make changes resulting in considerable volume of savings/recovery in their water consumption and wastewater production. Extra savings were generated due to the double impact of recovering materials while not having to use as much water in the cleaning process of these same materials.

155  
Ton

**Ton DECREASE in  
yearly solid waste  
production.**

Waste reduction was higher than projected, mainly due to its high profitability rate. This is because some materials, instead of being discarded, were instead retrieved and returned to the production process.

1,329,504

**Gallon DECREASE  
in yearly  
wastewater  
production.**

=These yearly values reported in 2014, will undoubtedly keep rising, especially as additional micro, small and medium enterprises adopt cleaner production practices.

Up to  
36%

Profitability ratio between saving and investments (different projects have reported 16%, 17%, 33%, and 36% profitability ratios).

It is evident that all the investments made by the participating enterprises to reduce their impact on the environment have already been surpassed by the savings and that these savings are sustainable, continuing throughout the years. Because cleaner production links environmental protection measures, generally considered as an expense, to increased profitability, it is expected that more micro, small and medium enterprises (in similar and different sectors) will begin to implement them. Most micro, small and medium enterprises that participated in the Program reported their most impressive achievements were in energy savings. A key challenge for the future is convincing businesses to invest further in reducing material use and contaminant emissions. These actions would further reduce the environmental impact of production and also improve business profitability if implemented.

**Over US\$ 3 million in savings were generated since 2007.**



## Case Study 2. Eco-Efficiency Promotes Competitiveness

Overall, a total of 39 small hotels in El Salvador, Nicaragua and the Dominican Republic participated in the USAID eco-efficiency initiative. A successful example is the Arbol de Fuego Hotel in El Salvador (16 rooms), where 18 eco-efficiency diagnostic recommendations were implemented in less than nine months. Up to 90% of incandescent light bulbs were changed to LEDs and compact fluorescent light bulbs. Also, with an investment of less than US\$5.00 per room to change water faucets and showerheads, water consumption was reduced by 40%. These actions illustrate the nature of the changes that can give fast results at a low cost. The hotel also launched a program to reuse towels and bedding, thus reducing the laundry load and subsequently lowering power consumption and reducing wastewater generation. It also installed solar panels to be used to heat water. Comparing data from 2009 and 2010 revealed that average energy consumption per guest fell by 38% and peak demand dropped by 42%. Examples like this demonstrate the clear commitment of companies in key economic sectors that have embraced Cleaner Production as a means to boost competitiveness.



▶ Arbol de Fuego Hotel. Source: <http://arboldefuego.com/>

*"Despite our commitments to the environment, in 2008 we experienced a hike in energy consumption which generated an enormous cost, it was no longer economically sustainable. The Program has given us many recommendations and tools to save water and energy, and to reduce costs. With these tools in hand, we made a serious commitment to implement the changes. These and other measures implemented have enabled us to reduce energy consumption by 38% and our power bills by almost 60%. Improving the efficiency of our resources definitely works. We are very thankful for having participated in this project."*

-Carolina Baiza, Marketing Manager

Hotel Arbol de Fuego, El Salvador (USAID 2011)

Source: USAID Final Report 2009-2011



Over **100** Professors across the region have been trained in cleaner production and environmental management system

Over **364** students have participated in practicum courses focusing on cleaner production

**11** Universities have committed themselves to including cleaner production and environmental management system modules in undergraduate, graduate, and free courses.



### Box 3. Promoting Cleaner Production through Teaching

Universities are the most effective means for long-term sustainability of knowledge and raising awareness in new professionals, and future business leaders. Throughout the CAFTA-DR region, hundreds of students have graduated from environmental, industrial and chemical engineering, and business management Box 3. Promoting Cleaner Production through Teaching programs with a focus on cleaner production. Most of these students have undertaken internships within micro, small and medium enterprises, where they have performed environmental audits, developed environmental management systems and proposed tangible solutions for reducing their impact on the environment, while increasing their profitability and competitiveness. Concurrently, the cleaner production centers play an active role in supporting academic institutions and students in developing curricula, skills and innovative knowledge to expand the use of cleaner production and seek improved solutions. Overall, these programs are allowing the younger generations to become increasingly passionate about cleaner production, as part of an emerging culture of sustainable development and environmental awareness.

### Case Study 3. The Benefits of Working at the Sector and Geographic Levels to Promote Cleaner Production

In Guatemala, the CGP+L (Centro Guatemalteco de Producción Más Limpia), municipality, environmental authorities, tourism sector, CCAD, and USAID, came together in a joint effort to support the pilot project to apply cleaner production in ten hotels located around the beautiful Lake Atitlan. This project revealed the importance in working both at the sector level and the geographic level. Within this project, participating hotels were able to decrease water consumption by 60% and energy consumption by 30-40%, which significantly reduced hotel operation costs and helped them become more economically competitive. The projects' success created a demand in other businesses, such as a coffee processing plant, and sectors, such as the restaurant association, which have started to replicate clean production measures in a joint effort with city government. In addition, a strong will was created for other municipalities to benefit from similar projects.



*"Cleaner production is a way to carry out best operating practices in tourism in harmony and conservation of the environment. It has demonstrated its potential as a tool for public and private management to preserve our beautiful Lake Atitlan, and to continue showing the world our country's beauty."*

- Mr. Gerardo Higueros, Mayor of Panajachel, Sololá, Guatemala. (Translated from the original Spanish, taken from USAID 2011)

**Source:** USAID Final Report 2009-2011



# In a few words:

The Environmental Cooperation Program has given the CAFTA-DR countries the necessary tools to work with different sectors, including the **private sector** to jointly assign the shared **responsibility for the conservation of natural resources**. It has enabled the **creation of new public-private alliances** and strengthened existing ones. Government agencies understand that they have to promote a system of **incentives** that allows them to guide efforts **to improve and reduce environmental impacts**. Also, the Program has helped to create a culture of environmental monitoring among the participating businesses. Overall, cleaner production practices that increase energy and water savings and decrease pollution are gaining traction, as a way for enterprises to **“green” supply chains**, save money, and **increase competitiveness**, while reducing consumption of natural resources and decreasing carbon emissions.



# Final Message

Over the past ten years, CAFTA-DR parties have worked together to advance environmental protection in the region in spite of geographical, social, and economic differences among the seven countries. Examples of these accomplishments include bringing more than **1.3 million hectares** of land under improved natural resource management, training over **120,000 people** in the implementation of environmental laws, saving more than **8,800 endangered animals** through wildlife rescue centers, and helping over **700 micro, small, medium, enterprises (MSMEs)** adopt cleaner production practices.

Despite all these successes, CAFTA-DR countries still face similar challenges associated with the degradation of natural resources, the enforcement of environmental laws, the illegal trade of wildlife, among others. These challenges require that governments continue promoting **regional initiatives** that enhance national capacities, improve coordination, and promote greater technical cooperation.

Solving the environmental challenges that the region faces, requires now more than ever, that governments **work together** with multiple stakeholders including the private sector, non-governmental organizations, and communities in the creation and implementation of sound environmental practices that allow for the improved well-being of all.

We are all the **people of CAFTA-DR**. We are all, **united protecting the environment**.











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